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DOMINION OF CANADA

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FORTY-FOURTH REPORT

OF THE

BOARD OF TRANSPORT COMMISSIONERS FOR CANADA

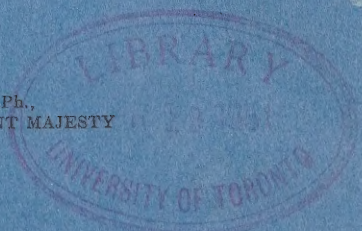
FOR THE YEAR ENDED DECEMBER 31

1948



OTTAWA
EDMOND CLOUTIER, C.M.G., B.A., L.Pb.,
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
CONTROLLER OF STATIONERY

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DOMINION OF CANADA

FORTY-FOURTH REPORT

OF THE

BOARD OF TRANSPORT COMMISSIONERS FOR CANADA

FOR THE YEAR ENDED DECEMBER 31

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1949

THE BOARD OF TRANSPORT COMMISSIONERS
FOR CANADA, 1948

Hon. Justice M. B. ARCHIBALD, *Chief Commissioner.*

W. H. M. WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

J. A. STONEMAN, *Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

P. F. BAILLARGEON,
Secretary.

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REPORT OF THE BOARD OF TRANSPORT COMMISSIONERS FOR CANADA

To the Governor in Council:

Pursuant to the provisions of Section 31 of the Railway Act, 1919, the Board of Transport Commissioners for Canada has the honour to submit its Forty-fourth Report for the year ended December 31, 1948.

AMENDMENTS TO THE RAILWAY ACT

The Railway Act was amended during 1948 by 11-12 Geo. VI, chapters 27 and 66. The principal effects of the amendments were (a) to increase the amount of the Railway Grade Crossing Fund; (b) to extend the jurisdiction of the Board in respect to telegraph and telephone lines along, across or under highways or other public places and in respect to the construction of drainage and the laying of pipes along, across or under telegraph or telephone lines; (c) to provide that any person may be appointed Chief Commissioner who is a judge of the Exchequer Court; and (d) to increase the salaries of the Commissioners.

There were no amendments to the Transport Act, 1938, during 1948.

PUBLIC SITTINGS OF THE BOARD

During the year covered by the period from January 1, 1948, to December 31, 1948, the Board held 28 public sittings at which 43 cases were heard. The number of public sittings held in the various provinces was as follows:—

Provinces	Number
Ontario.....	15
Quebec.....	4
Manitoba.....	1
Saskatchewan.....	1
Alberta.....	2
British Columbia.....	4
Nova Scotia.....	0
New Brunswick.....	1
Prince Edward Island.....	0
Total.....	28

The applications include a great variety of matters falling within the jurisdiction of the Board under the Railway Act and the Transport Act, varying from a complaint of a private individual to weightier matters of general public interest affecting the community as a whole.

FORMAL AND INFORMAL MATTERS

The number of informal matters dealt with by the Board, as distinguished from matters heard at public sittings, constitute a considerable percentage of the total applications and complaints dealt with by it; that is to say, of a total 2,275 applications and complaints received and dealt with by the Board 98·11 per cent were disposed of without the necessity of such formal hearing. These informal complaints, dealt with and settled without the necessity of hearing, entail in

many instances a considerable amount of inquiry and consideration on the part of the Board and the Board's officials, and cover a wide range of subjects, as, for example, a complaint of a more or less trivial nature to a matter of general public interest affecting the community as a whole, or involving the application of some general principle regarding the transport rates.

DECISIONS AND RULINGS OF THE BOARD

Judgments, General Orders and Regulations of the Board appear in the semi-monthly bulletin of the Board published through the King's Printer. The Board's Judgments are also reported in the Canadian Railway and Transport Cases. Brief notes of the more important Judgments delivered by the Board in 1948 are given below.

RE GENERAL INCREASE IN FREIGHT RATES 62 C.R.T.C. 1

This was an application by the Railway Association of Canada on behalf of its member companies for authority to make a general advance of thirty per cent in freight rates in so far as such rates are within the jurisdiction of the Board, and for authority to make a similar advance in certain express rates.

In addition to the sittings at Ottawa the Board held regional hearings at Saint John, Halifax, Charlottetown, Regina, Vancouver, Edmonton, Winnipeg, Toronto and Montreal.

By Order No. 70425 the Board authorized a general advance of twenty-one per cent in rates referred to in the application except on coal, coke and certain other items. On coal and coke, a flat increase of twenty-five cents a ton was authorized. The authorization of increased rates did not include:

- (1) Rates on grain and grain products from all points on all lines of railway West of Fort William to Fort William, Port Arthur and Armstrong.
- (2) Rates on grain and grain products from all Prairie points on all lines of railway to Vancouver, Prince Rupert and other British Columbia Coast Ports for export.
- (3) Rates on grain and grain products for domestic consumption between points in Western Canada and rates on feed grain published in C.F.A. Tariff C.T.C. 154.
- (4) Joint international rates (except rates on coal and coke) between Canada and the United States of America which were increased as a result of Decisions of the Interstate Commerce Commission in Ex Parte 148, 162 and 166.
- (5) Rates between United States points on traffic passing through Canada.
- (6) Export and Import rates to and from Canadian ports, which are presently on a parity with rates to or from United States ports.
- (7) Agreed Charges.
- (8) Demurrage and Penalty Charges.
- (9) Interswitching Rates covered by the Board's General Order No. 252, dated October 26th, 1918.

Upon petition of the governments of British Columbia, Alberta, Saskatchewan, Manitoba, Nova Scotia, New Brunswick and Prince Edward Island, praying for relief from the judgment of the Board, the Governor in Council by Order in Council P.C. 4678, directed that the Board consider in the light of such changes in conditions of operations as have or will have taken place, the complaints

set forth in the petition concurrently with the pending application for a further increase in freight rates, and that the disposition by the Board of the matters set forth in the petition and any revision of Order No. 70425 that may result from such consideration be made by the Board in relation to its disposition of the said pending application.

CANADIAN CAR DEMURRAGE BUREAU VS GOODYEAR TIRE & RUBBER COMPANY
62 C.R.T.C. 145

Rule 1 of the Demurrage Tariff exempts from demurrage private cars on private tracks of the car owner. The respondent industry imports carbon black in specially constructed hopper cars which it leases from the suppliers of the commodity. The cars are held for unloading upon the private tracks of the respondent.

The respondent argued that by leasing the cars it became the "car owner" within the meaning of the Rule, and that alternatively the exceptional circumstances surrounding the handling of carbon black justified a relaxation of the Rule.

The Board had stated in a previous case that the leasing of cars for the purpose of avoiding demurrage should be discontinued and as the respondent was unable to show any other purpose for the leases in question, the Board held that the leases could not be recognized, and that the conditions surrounding the movement of carbon black are not such as to justify a relaxation of the Rule.

FOREST HILL VILLAGE VS C.N.R.
62 C.R.T.C. 171

The railway, being junior, had constructed a highway bridge over its line and had maintained it. Changes in highway conditions required a wider and safer structure, and there was some obligation upon the railway to meet the changed conditions.

The Board directed that from the reconstruction cost there should first be deducted and charged to the municipality the amount that it would have had to expend for fill to grade the street if the railway had not been present; that the cost of diverting a nearby street, included in the estimate for the bridge, was also to be borne by the municipality, as the diversion was purely a civic improvement; and that the balance of cost of construction and the cost of maintenance of the bridge were to be shared equally between the municipality and the railway.

ST. DUNSTAN VS BELL TELEPHONE COMPANY
62 C.R.T.C. 188

The complaint in this case that a base rate area did not include a nearby community.

The Board has held in numerous decisions that the establishment, redivision and readjustment of exchange areas of a telephone company are matters of internal management of the company's business, with which the Board has no jurisdiction to interfere. However, the Board has power and jurisdiction to deal with all questions of unreasonableness or unjust discrimination in respect of telephone tolls resulting from the establishment, redivision and readjustment of the boundaries of any base rate areas, and, where it considers such tolls to be unreasonable or unjust or contrary to any of the provisions of the Railway Act, may require the company to substitute tolls satisfactory to the Board in lieu thereof, or may prescribe other tolls in lieu of the tolls published by the company.

In this case the Board held that the applicant had not established that there was unjust discrimination within the meaning of the Railway Act, or that the rates were unreasonable. The application was therefore dismissed.

RAIL & WATER TERMINAL OF MONTREAL LTD. VS ROBIN HOOD FLOUR MILLS
LIMITED AND CANADIAN NATIONAL RAILWAYS

62 C.R.T.C. 229

As the Board has no power to direct or authorize the extension of an industry's private spur to serve a second industry, the applicant sought an order requiring the Canadian National Railway Company to expropriate the respondent industry's spur and thereafter to extend it to the applicant's property as a branch line of railway under sections 185 and 186 of the Railway Act.

The Board held that sections 185 and 186 of the Railway Act do not apply to the Canadian National Railway Company, these sections being within the category of "Location of Line" sections which are excluded from application to that company by s. 17 of the Canadian National Railways Act, R.S.C. 1927, c. 172 (am. 1929, c. 10, s. 2).

The application was dismissed.

DEPARTMENT OF ROADS, QUEBEC VS CANADIAN NATIONAL RAILWAYS

62 C.R.T.C. 237

Upon the application of the Department of Roads of the Province of Quebec, the Board approved the diversion of a highway and authorized the construction of the road as diverted across the railway. But the Board refused to authorize a grant from the Railway Grade Crossing Fund. The Board was of the opinion that a grant from the Grade Crossing Fund would not be in accord with the spirit of the statute. For no physical change was intended to be made in the existing crossing and it would continue to be used by an adjoining industry and its employees.

APPEALS FROM RULINGS OF THE BOARD

There were no cases referred to the Supreme Court of Canada by the Board for its opinion.

There were no cases carried in appeal to the Supreme Court of Canada.

There was one case carried in appeal to the Governor in Council, namely:—

An appeal from the judgment and Order of the Board No. 70425, dated March 30, 1948, in the matter of the application of the Railway Association of Canada, dated October 9, 1946, for an Order of the Board authorizing a general increase of 30% in the freight rates. (The Privy Council rendered its decision in this appeal, by Order in Council P.C. 4678, dated October 12, 1948, whereby the Board was directed to review its judgment and Order No. 70425, dated March 30, 1948.)

ORDERS, GENERAL ORDERS AND CIRCULARS

The total number of orders issued for the year ended December 31, 1948 was 1,805. The number of general circulars issued by the Board directed to all the transport companies subject to its jurisdiction was one. The general orders as distinguished from other orders of the Board are those affecting all transport companies subject to its jurisdiction, and are 16 in number for the year.

The general orders and circulars issued by the Board during the year ended December 31, 1948, will be found compiled under Appendix "H" of this report.

APPLICATIONS TO THE BOARD

The total number of applications, including informal complaints, made to the Board for the year ended December 31, 1948, was 2,275.

TRAFFIC DEPARTMENT OF THE BOARD

In the Traffic Department of the Board the number of tariffs received and filed for the year ended December 31, 1948, was as follows:—

Freight tariffs, including supplements	28,756
Passenger tariffs, including supplements	2,686
Express tariffs, including supplements	4,040
Telephone tariffs, including supplements	1,156
Sleeping and Parlour car tariffs, including supplements	68
Telegraph and Radio tariffs and supplements	20
Bridge tolls, including supplements	2
Water freight tariffs, including supplements	158
Water passenger tariffs, including supplements	28
Agreed Charges—tariffs	49
Total	36,963

The total number of tariffs filed from February 1, 1904, to December 31, 1948, was 2,431,394.

The details of the tariffs will be found under Appendix “C” to this report.

ENGINEERING DEPARTMENT OF THE BOARD

The report of the Engineering Department shows that 549 inspections were made covering the whole Dominion. These inspections for the year ended December 31, 1948, cover opening of railway for the carriage of traffic, highway crossings, signal protection at highway crossings, bridges, subways, interlocking plants, drainage, private crossings, railway lines in connection with maintenances, signals at swing bridges, fencing, improving view at crossings, investigations and inspections in connection with accidents on railway lines and at highway crossings, automatic block signals, less than standard clearance, and many inspections in connection with projects to provide post-war work.

A statement of works approved by Board's Orders on the recommendation of the Engineering Department is included in the report together with an explanation of the work, study and investigation involved.

There is a report on expenditures from the Railway Grade Crossing Fund and Special Votes for protection at highway crossings of railways.

It will be noted in the report that many matters that come up and are referred to the Engineering Department are settled by inspections, personal contact or correspondence without the necessity of an Order of the Board.

The Engineering Department report will be found under Appendix “D”.

OPERATING DEPARTMENT

The following general matters were dealt with by the Operating Department of the Board during the year 1948:

General Railway Accidents (including Highway Crossings)	2,933
Highway Crossing Accidents	414
Motive Power Reports	60,604
Locomotive Inspections	8,279
Internal Boiler Inspections	135
Stationary Boiler Reports	2,821
Freight Cars Inspected	35,696
Passenger Coaches Inspected	2,848
Air Reservoir Reports	4,434
Inflammable Liquid Installations	229
Liquefied Petroleum Gas Installations	19
Fires on Forested Territory	640
Fireguards Ploughed (miles)	4,704

Regulations for the Transportation of Explosives and Other Dangerous Articles both by Freight and Express.

The number of accidents investigated totalled 2,933 involving 3,863 casualties of which number 399 persons were killed and 3,464 injured, which is an increase over the previous year of 424 casualties.

Accidents at highway crossings for the year totalled 414 with 159 killed and 566 injured. Of this number 72 accidents occurred at crossings where there were protective devices, with the remaining 342 occurring at unprotected crossings.

During the year numerous investigations were made regarding train and station services, approval of new, or additions to, stations, removal or appointment of station agents, and all other features pertaining to train operation.

Five hundred and sixty fires attributed to railways are reported to have originated on 13,670 miles of line classified as forested territory. These fires burned 5,200 acres of young forest growth, 7,000 acres of merchantable timber, 1,106 acres of slashing or old burned lands not restocking, and 4,127 acres of non-forested lands.

Of this total 171 fires burned over less than one-fourth acre each; 329 fires burned over an area of one-fourth acre to ten acres each; and 60 fires burned over an area of more than 10 acres each.

The total area burned over was 17,433 acres, with damage to young forest growth, standing timber, forest products and other property, estimated at \$156,117. Of this amount, the value of standing timber and young forest growth is estimated at \$17,566.

In accordance with the requirements of the Board, the Railways maintained special patrol on 7,835 miles of line, necessitating the special attention to fire patrol of a total of approximately 1,023 fire patrolmen.

Under the co-operative arrangements with the various Dominion and Provincial Forest Services, 231 officers and men of such services were under appointment as ex-officio officers of the Board.

During the year 1948, 4,812 inspections of locomotive fire protective appliances were made in connection with railway fire prevention.

In accordance with the Board's Fireguard Requirements, the railways constructed or maintained 4,704 miles of fireguards in uncultivated lands, in non-forested sections of the Prairie Provinces.

BUREAU OF TRANSPORTATION ECONOMICS

This Bureau constitutes a new department of the Board. It started to function in the last days of 1946. Its main duties consist in supplying the Board with the result of economic studies in the general transportation field and with reports on the economic aspects of the cases submitted to the Board for determination. The report of the activities of the Bureau, during 1948, is to be found in Appendix "F".

RAILWAY GRADE CROSSING FUND

This fund has been created for the purpose of contributing to the protection of railway level crossings. This protection is brought about by various means, for instance, by the improvement of the view on the approaches of crossings, by the installation of protective devices such as bells and wig-wags, lighting systems, gates, etc. In many instances, and particularly in cities and towns, protection is also afforded by the employment of watchmen. Finally, the most efficient means of protecting level crossings, is, undoubtedly, by separating them altogether, which can be effected in various ways, for example, by the construction of over-crossings or bridges, and of tunnels and subways. Road diversion is another way to do away with level crossings.

ROUTINE WORK OF THE BOARD

RECORD DEPARTMENT.

Below is given a table setting forth the number of applications, filings and letters received during the year ended December 31, 1948, together with the number of orders issued:—

Number of applications made.....	2,275
Number of filings received during the year.....	18,080
Number of outgoing letters during the year.....	22,111
Number of orders issued during the year.....	1,805

APPOINTMENTS TO THE BOARD

On July 1st, 1948, the Honourable M. B. Archibald, judge of the Exchequer Court of Canada, was appointed Chief Commissioner of the Board to replace Mr. J. A. Cross, C.M.G., D.S.O., K.C., who had previously resigned after a little more than eight years of service. Mr. H. B. Chase, C.B.E., was appointed Commissioner on July 28th, 1948, to take the place of Mr. G. A. Stone who had retired on June 30th, 1948, after over sixteen years of service.

NOTE.—For list of members of the Board who have served or are serving on the Board see Appendix "A".

CHANGES ON THE STAFF OF THE BOARD

On February 1st, 1948, Mr. J. C. Lessard, Director of the Bureau of Transportation Economics, was promoted to the position of Deputy Minister of Transport and, later, Mr. G. A. Scott was promoted to the position of Director of the Bureau from that of Assistant Director.

Mr. A. S. Kirk, Assistant Director of Traffic, was promoted to the position of Director of Traffic following the retirement, on December 20th, 1948, of his predecessor, Mr. W. E. Campbell, who had previously served the Board for a period of over twenty-six years.

Mr. H. C. Johnson, District Inspector of Fire and Explosives, and Miss R. LaRose, Principal Clerk, were also retired during the year after long periods of service with the Board.

The following new employees were appointed during the year: Messrs. H. W. Ellicott, Assistant Director of Traffic, F. C. Altimas, Chief of Audit Division, J. A. Sutherland, District Engineer, and A. J. Irwin, District Inspector.

APPENDIX "A"

LIST OF MEMBERS OF THE BOARD WHO HAVE SERVED OR ARE SERVING
ON THE BOARD

Member's Name	Office	Appointment	Termination
Hon. A. G. Blair, K.C.	Chief	Feb. 1, 1904	Oct. 31, 1904 (resigned)
Hon. M. E. Bernier	Deputy	Feb. 1, 1904	Jan. 31, 1914 (served term)
James Mills	Commr.	Feb. 1, 1904	Jan. 31, 1914 (served term)
Hon. A. C. Killam, K.C.	Chief	Feb. 6, 1905	Mar. 1, 1908 (died)
Hon. J. P. Mabee, K.C.	Chief	Mar. 28, 1908	May 6, 1912 (died)
D'Arcy Scott	Ass't.	Sept. 17, 1908	Sept. 16, 1918 (served term)
S. J. McLean	Commr.	Sept. 17, 1908	Sept. 16, 1918 (reappointed)
Hon. Thos. Greenway	Commr.	Sept. 17, 1908	Oct. 30, 1908 (died)
A. S. Goodeve	Commr.	April 4, 1912	Nov. 22, 1920 (died)
Henry L. Drayton, K.C.	Chief	July 1, 1912	Aug. 1, 1919 (resigned)
Hon. W. B. Nantel, K.C.	Deputy	Oct. 20, 1914	Oct. 19, 1924 (served term)
A. C. Boyce, K.C.	Commr.	Oct. 4, 1917	Oct. 3, 1927 (served term)
Dr. J. G. Rutherford, C.M.G.	Commr.	Sept. 17, 1918	July 24, 1923 (died)
Hon. F. B. Carvell, K.C.	Chief	Aug. 2, 1919	Aug. 9, 1924 (died)
S. J. McLean, LL.B.	Commr. Ass't.	Sept. 16, 1918 Aug. 6, 1919	Sept. 15, 1928 (reappointed)
Calvin Lawrence	Commr.	Nov. 4, 1921	May 4, 1931 (died)
Hon. Frank Oliver	Commr.	Sept. 21, 1923	Sept. 20, 1928 (reached age of 75)
Hon. H. A. McKeown, K.C.	Chief	Sept. 16, 1924	Feb. 28, 1931 (resigned)
Thomas Vien, K.C.	Deputy	Sept. 5, 1925	Jan. 31, 1931 (resigned)
Hon. T. C. Norris	Commr.	Mar. 30, 1928	Mar. 29, 1938 (served term)
S. J. McLean, LL.B.	Ass't.	Sept. 17, 1928	Sept. 16, 1938 (served term)
John A. Stoneman	Commr.	Mar. 12, 1929	Mar. 11, 1939 (reappointed)
Hon. C. P. Fullerton, K.C.	Chief	Aug. 13, 1931	Dec. 31, 1933 (resigned)
F. A. Labelle	Deputy	Dec. 16, 1931	July 15, 1933 (died)
G. A. Stone	Commr.	Dec. 16, 1931	Dec. 15, 1941 (reappointed)
F. Nap. Garceau, K.C.	Deputy	Sept. 16, 1933	April 10, 1943 (reached age of 75)
Hon. Hugh Guthrie, K.C.	Chief	Aug. 12, 1935	Nov. 3, 1939 (died)
Hugh Wardrope	Ass't.	Nov. 8, 1938	Nov. 8, 1948 (reappointed)
John A. Stoneman	Commr.	Mar. 11, 1939	Mar. 10, 1949
F. M. MacPherson	Commr.	Sept. 21, 1939	Sept. 20, 1949
J. A. Cross, Col. D.S.O., K.C.	Chief	April 1, 1940	June 30, 1948 (resigned)
G. A. Stone	Commr.	Dec. 15, 1941	July 1, 1947 (reached age of 75) (reappointed—July 1, 1947 to June 30, 1948)
Armand Sylvestre, K.C., LL.B.	Deputy	April 18, 1945	April 17, 1955
Hon. Mr. Justice M. B. Archibald	Chief	July 1, 1948	June 30, 1958
H. B. Chase, C.B.E.	Commr.	July 28, 1948	July 27, 1958
Hugh Wardrope	Ass't.	Nov. 8, 1948	Nov. 7, 1958

APPENDIX "B"

(1) Since the establishment of the Board, its jurisdiction has been extended to the following matters:—

- (a) Bridges—3 Edw. VII, c. 58, s. 8 and R.S. Can. 1927, c. 20.
- (b) Express tolls—6 Edw. VII, c. 42, s. 27, 1906.
- (c) Telegraph companies—c. 61, 1908, s. 4.
- (d) Telephone companies—6 Edw. VII, c. 42, s. 30.
- (e) Radio—1938 Can. Statutes, c. 50, s. 6.
- (f) International bridges and tunnels—1929, c. 54.
- (g) Maritime Freight Rates Act—1927, c. 44.
- (h) Abandonment of operation of railway lines—1933, c. 47 (s. 165A).
- (i) Canadian National-Canadian Pacific Act, 1933, c. 33.
- (j) The Transport Act, 1938, c. 53—(Licensing and rate regulation of ships; agreed charges).
- (k) Agreements—(s. 35 of present Act)—8-9 Edw. VII, c. 32, s. 1.
- (l) Purchase of electrical energy from a person who has acquired water power under lease from the Crown (s. 374 of present Act)—1909, c. 31, s. 1.
- (m) Railway Grade Crossing Fund (s. 262 of present Act)—1909, c. 32, s. 7.

(2) Since 1923 the jurisdiction of the Board has been extended to the following railways:—

Hudson Bay Railway.

Intercolonial.

Prince Edward Island.

National Trans-Continental.

Lake Superior Branch (Leased from G.T.P.R.).

Quebec North Shore and Labrador Railway.

(3) In addition to the above there are a number of Acts which gave the Board jurisdiction over particular companies in certain specified matters.

APPENDIX "C"

REPORT OF THE DIRECTOR, TRAFFIC DEPARTMENT,
FOR THE YEAR ENDED DECEMBER 31, 1948

Submitted herewith for the Board's Forty-Fourth Annual Report is a summary of the work of the Traffic Department for the year ended December 31, 1948.

TARIFFS

Tariff schedules, including amendments, filed by Rail and Water carriers, Communication Companies and International Bridge Companies in conformity with the law, are in the custody of this Department, which deals with all matters concerning them.

During the year under review, the number of tariffs for freight and passengers, of Rail and Water carriers, Agreed Charges, Express Telephone, Telegraph, Sleeping and Parlor Car and International Bridge tolls filed with the Board, was as follows:—

FROM JANUARY, 1948 TO AND INCLUDING DECEMBER 31, 1948

FREIGHT		Total
<i>Rail—</i>		
Local Tariffs.....	1,937	
Supplements.....	802	
	<hr/>	2,739
Joint Tariffs.....	138	
Supplements.....	5,429	
	<hr/>	5,567
International Tariffs.....	367	
Supplements.....	20,083	
	<hr/>	20,450
		<hr/>
		28,756
<i>Water Carriers—</i>		
Local Tariffs.....	26	
Supplements.....	99	
	<hr/>	125
Joint Tariffs.....	6	
Supplements.....	9	
	<hr/>	15
International Tariffs.....	8	
Supplements.....	10	
	<hr/>	18
		<hr/>
		158
<i>Agreed Charges</i>		
Tariffs.....	2	
Supplements.....	47	
	<hr/>	49

PASSENGER

<i>Rail—</i>		
Local Tariffs.....	205	
Supplements.....	173	
	<hr/>	378
Joint Tariffs.....	188	
Supplements.....	465	
	<hr/>	653
International Tariffs.....	426	
Supplements.....	1,229	
	<hr/>	1,655
		<hr/>
		2,686

Water Carriers—

		Total
Local Tariffs.....	20	
Supplements.....	4	
	<hr/>	24
Joint Tariffs.....	1	
Supplements.....	0	
	<hr/>	1
International Tariffs.....	3	
Supplements.....	0	
	<hr/>	3
		<hr/>
		28

Sleeping & Parlour Car—

Local Tariffs.....	3	
Supplements.....	0	
	<hr/>	3
Joint Tariffs.....	0	
Supplements.....	12	
	<hr/>	12
International Tariffs.....	4	
Supplements.....	49	
	<hr/>	53
		<hr/>
		68

EXPRESS

Local Tariffs.....	253	
Supplements.....	594	
	<hr/>	847
Joint Tariffs.....	174	
Supplements.....	403	
	<hr/>	577
International Tariffs.....	79	
Supplements.....	2,537	
	<hr/>	2,616
		<hr/>
		4,040

TELEPHONE

Local Tariffs.....	4	
Supplements.....	300	
	<hr/>	304
Joint Tariffs.....	1	
Supplements.....	851	
	<hr/>	852
International Tariffs.....	0	
Supplements.....	0	
	<hr/>	0
		<hr/>
		1,156

TELEGRAPH

Tariffs.....	1	
Supplements.....	19	
	<hr/>	20

INTERNATIONAL BRIDGE TOLLS

International Tariffs.....	2	
Supplements.....	0	
	<hr/>	2

Combined Totals All Schedules.....	36,963
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Underlying the requirements as to the filing of joint tariffs, are documents known as "Concurrences". These documents are issued by carriers in Canada in respect of tariffs of other carriers in which the concurring carrier is a participant. Such Concurrences are required by Section 336 of the Railway Act and by the Board's regulations made under the Transport Act of 1938. During the year 1948, 417 Concurrences were filed and 167 Revocations received.

Under certain conditions, tariffs are issued and filed by agents for the carriers concerned. In such cases, the carriers execute Powers of Attorney, appointing such Agent, which documents are also filed with the Board, as required by Sections 336 and 341 of the Railway Act and by the Board's regulations made under the Railway Act and the Transport Act, 1938. During the year 1948, 1,393 Powers of Attorney were so filed and 119 Revocations were received.

Due to the establishment of new industries or by reason of new products, changes in source of supply, competitive conditions, and many other reasons, tariffs are constantly being revised, resulting in the filing as above outlined of 36,963 schedules. This coupled with the supporting Powers of Attorney and Concurrences, totalled 39,059 tariffs and documents, or an average of 129 per working day.

During the year 1948, three nationwide rate increases were authorized by the Interstate Commerce Commission which affected all joint international rates between Canada and the United States; also during the year Canadian carriers were granted a general increase in Canadian rates and the railways themselves made rather widespread general increases in competitive rates. Many of the international rate changes have created considerable difficulties in extracting rates from the carriers' tariffs as well as increasing considerably the volume of tariff filings. This Department's staff, in addition to recording and filing the tariff schedules above referred to, is called upon to furnish information with respect to almost every class of service for which tariffs are provided. The demands for such information during the past year have been very heavy. The greatest care and exactitude is exercised to keep the records in readiness for all demands made upon the Board for such type of information. The paragraphs which follow indicate some of the main features with which the Department has been dealing.

FREE TRANSPORTATION

The issuance of free transportation by carriers subject to the Railway Act and the Transport Act, 1938, involves an audit of such issuance by the Board. Questions involving misuse of free transportation or issuance for which no authority has been granted are investigated and to the extent found necessary, corrective action is dealt with by this Department.

CORRESPONDENCE

Communications emanating from this Department during the year totalled 3,647, of which 998 were memoranda and reports to the Board, 2,460 to carriers subject to the Board's jurisdiction, and 189 to others. All of these communications relate to the administrative functions of this Department in carrying out the Board's specific and general directions and involve principally matters of interpretation of tariffs and classifications, filing of tariffs, Powers of Attorney, Concurrences, free or reduced rates and the administration of the Maritime Freight Rates Act, etc.

MARITIME FREIGHT RATES ACT

The Maritime Freight Rates Act, 1927, requires the approval by the Board of all tariff schedules filed pursuant thereto; it also requires, except in the case of the Canadian National Railways, that the Board certify the normal tolls which, but for the Act, would have been effective and to also certify to the Minister of Transport the amount payable as reimbursement to the carriers in compensation for the statutory reduction in rates.

All of the duties so involved are handled by this Department and requires that the carriers report to the Traffic Department each individual shipment which moves under the provisions of the Act, the rate which was charged, and the rate which would normally apply but for the Act. Such statements require that every shipment be checked as to Freight Classification, Weight, Rate and Extensions.

For the period from July 1, 1947, to June 30, 1948 inclusive, there were filed 24,773 statements with an average of 74 rates per sheet; approximately 1,833,202 rates which were individually checked and revised where necessary. Of the statements so filed, there were approximately 916,601 extensions of charges which required checking, and 24,773 columns of figures to be added.

Resulting from this check, 9,521 corrections were made to the Railways' application for reimbursement. The total amount of reimbursement claimed by the Railways was \$1,153,866.54, and the total amount allowed was \$1,126,458.10 or a net deduction of \$27,408.44. During this period 114 Orders were issued, approving tariffs or rates and certifying as to normal tolls.

AGREED CHARGES (PART V, THE TRANSPORT ACT)

At December 31, 1948, 20 Agreed Charge Tariffs were in effect, applicable to 103 different shippers.

During the year 1948, two new Agreed Charges were submitted to the Board and approved. Ten applications were received for the Board to fix charges the same as agreements already in effect.

The following Orders were issued with respect to Agreed Charges during the year under review.

AGREED CHARGE ORDERS

Order 70137, January 28.—Approval of Agreed Charge on petroleum products for Husky Oil and Refining Ltd., from Borradaile, Alta., Lloydminster, Alta-Sask., and Lone Rock, Sask., to points in the Provinces of Alberta and Saskatchewan.

Order 70138, January 29.—Approval of Agreed Charge on petroleum products for Imperial Oil Limited, McColl-Frontenac Oil Company, Ltd., and North Star Oil Limited, from Calgary, Alta., to points in the Provinces of Alberta and Saskatchewan.

Order 70480, April 8.—Providing for modification of Agreed Charges to the extent that they may be increased in the same manner as prescribed in the Board's Order No. 70425, dated March 30, 1948.

Order 70523, April 16.—Directing, upon the application of Wong and Tetlock Lumber Company, the fixing of charges upon the same basis and subject to the same conditions as the Agreed Charge approved by Order 59787, dated October 18, 1940, with the increases authorized by Order 70480, dated April 8, 1948, for the transportation of lumber and forest products shipped by the applicant from Spur, mileage 54.2 Erwood Sub-division of the Canadian National Railways in Manitoba.

Order 70631, May 7.—Directing, upon the application of the Reston Creamery, the fixing of charges upon the same basis and subject to the same conditions as the Agreed Charge approved by Order 60373, dated February 26, 1941, with the increases authorized by Order 70480, dated April 8, 1948, for the transportation of eggs shipped by the Applicant from Reston, Man., to Winnipeg, Man.

Order 70665, May 19.—Directing, upon the application of Hayward Lumber Sales, the fixing of charges upon the same basis and subject to the same conditions as the Agreed Charge approved by Order 59787, dated October 18, 1940, with the increases authorized by Order 70480, dated April 18, 1948, for the transportation of lumber and forest products from Lac La Biche, Alberta.

Order 70758, June 11.—Directing, upon the application of Northern Planing Mill, Hystad Brothers and Barrows Lumber Company, the fixing of charges upon the same basis and subject to the same conditions as the Agreed Charge approved by Order 59787, dated October 18, 1940, with the increases authorized by Order 70480, dated April 18, 1948, for the transportation of lumber and forest products from Grande Prairie, Alta., Dimsdale, Alta., and Barrows, Man.

Order 70904, July 3.—Directing, upon the application of Imperial Oil Ltd., the fixing of charges upon the same basis and subject to the same conditions as the Agreed Charge approved by Order 70138, dated January 29, 1948, for the transportation of petroleum products from Valesso, Alta.

Order 71294, October 5.—Directing, upon the application of Imperial Lumber Co. Ltd., the fixing of charges upon the same basis and subject to the same conditions as Agreed Charge approved by Order 59787, dated October 18, 1940, with increases authorized by Order 70480, dated April 18, 1948, for the transportation of lumber and forest products from Kenuso, Alta.

- Order 71377, October 25.*—Approval of amendment to Agreed Charge approved by Order 70137 by increasing the mileage allowance to shippers from $1\frac{1}{2}$ to 2 cents per car mile in lieu of furnishing tank cars.
- Order 71379, October 25.*—Approval of amendment to Agreed Charge approved by Order 59568 by increasing the mileage allowance to shippers from $1\frac{1}{2}$ to 2 cents per car mile in lieu of furnishing tank cars.
- Order 71389, October 23.*—Approval of amendment to Agreed Charge approved by Order 68072 by increasing the mileage allowance to shippers from $1\frac{1}{2}$ to 2 cents per car mile in lieu of furnishing tank cars.
- Order 71394, October 27.*—Approval of amendment to Agreed Charge approved by Order 70138 by increasing the mileage allowance to shippers from $1\frac{1}{2}$ to 2 cents per car mile in lieu of furnishing tank cars.
- Order 71599, November 30.*—Approving Supplement 4 to Tariff C.T.C. (A.C.) 14 modifying Agreed Charge between the Canadian National Railways and other carriers and the British American Oil Co.
- Order 71606, November 30.*—Approving Supplement 3 to Tariff C.T.C. (A.C.) 24 modifying Agreed Charge between the Canadian National Railways and other carriers and the Sun Oil Company, Ltd.
- Order 71728, December 21.*—Approving Agreed Charge between the Canadian Pacific and Canadian National Railways and McColl-Frontenac Oil Co. Ltd., for the transport of petroleum products from Valesso, Alta.
- Order 71748, December 23.*—Directing, upon the application of Canadian Mineral Spirits Co. Ltd., the fixing of charges upon the same basis and subject to the same conditions as Agreed Charge approved by Order 60544, dated April 9, 1941, for the transportation of naphtha and naphtha solvents from Clarkson, Ont.

WATER TRANSPORTATION LICENCES (PART II, THE TRANSPORT ACT)

Great Lakes & St. Lawrence River

Eleven licences were granted to ten water carriers, applicable to eighty ships operating between points in Canada on the Great Lakes and St. Lawrence River in the area between Quebec City and the head of the Great Lakes. Of these ships, two are licensed to transport passengers only; sixty-four to transport goods only, and fourteen to transport passengers and goods.

There was a net increase of three ships so licensed from the previous year.

Mackenzie River

Licences issued with respect to ships operating in the Mackenzie Watershed during the year under review totalled 159 vessels, the details of which are as follows:

Licensee	Ships Licensed
Yellowknife Transportation Co. Ltd.	18
McInnes Products Corp. Ltd.	32
Northern Transportation Co. Ltd.	78
Hudson's Bay Company	27
Charles Sanders	2
O'Sullivan & Stigsen	2

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APPLICATIONS AND COMPLAINTS DEALT WITH BY THE TRAFFIC DEPARTMENT DURING THE YEAR ENDED DECEMBER 31, 1948

- File 3675.4.*—Application of International Railway Company concerning appointment of John W. Van Allen and Henry W. Keitzel as Trustees to operate and manage the business of the International Railway Company.
- File 4214.1591.*—Application of Mr. Roy Torode, Val Morin, Que. concerning charges on goods shipped by express from New York, N.Y., to Val Morin, Que.
- File 29159.679.*—Application of Mr. Robert P. Merks, Montreal, Que., for telephone service.
- File 3574.501.*—Application of Rev. Robert McClurkin, Galt, Ont., for telephone service.
- File 25705.19.*—Complaint of Alsip Brick, Tile and Lumber Co. Ltd., Winnipeg, Man., with respect to rate on gravel and sand from Beausejour to Winnipeg.
- File 29159.680.*—Application of Mr. Paul Archambault, Montreal, Que., for telephone service.

- File 45379.*—Application of Mr. Julius A. Rosenfeld, Montreal, Que., concerning the rate on shavings in carloads from Chambord, Que., to Chateauguay, Que.
- File 40994.4.*—Application for approval of Agreed Charge on petroleum products from Calgary, Alta., to points in Alberta and Saskatchewan.
- File 40994.28.*—Application for approval of Agreed Charge on petroleum products from Borradaile, Lloydminster, Alta., and Lone Rock, Sask., to points in Alberta and Saskatchewan.
- File 24433.28.*—Application of Mr. J. E. Snedker, Saltcoats, Sask., concerning freight charges on pedigreed horse shipped from Decker, Man. to Bredenbury, Sask.
- File 3574.502.*—Application of Noe Bourassa Limitee for telephone service on behalf of Fernand Mosseau.
- File 1700.991.*—Application of LaRoe, Brown & Winn, Washington, D.C., with respect to transportation of liquid chlorine in tank cars.
- File 45397.*—Application of Technical Enterprises Company, Toronto, Ont., concerning establishment of a carload rate on blankets from Winnipeg to New York.
- File 4214.1594.*—Application of the West Bend Board of Trade, West Bend, Sask., concerning express cartage.
- File 29159.681.*—Application of Mr. Roland Lamarche, Montreal, Que., for telephone service.
- File 1700.438.*—Application of Corrigan, Lawson Company, Winnipeg, Man., with respect to the assessment of demurrage charges.
- File 3574.503.*—Application of Mr. R. D. Heddle, Beloeil Station, Que., for telephone service.
- File 29674.1 and 2.*—Enquiry of Conaway-Cooper Company, Los Angeles, Calif., with respect to the collection of exchange surcharge on international shipments of freight traffic.
- File 4214.640.*—Enquiry of Mr. Gordon E. Taylor, M.L.A., Edmonton, Alta., concerning regulations governing the establishment of express cartage limits.
- File 26860.4.*—Enquiry of Mr. P. E. Wright, M.P., with respect to rate on grain from Brancepeth, Sask., to Fort William, Ont.
- File 27008.94.*—Claim of Mr. Andre Morin, St. Fabien, Que., for reimbursement for three tractors lost in transit from Montreal to St. Fabien.
- File 35910.3.*—Complaint of Winnipeg Live Stock Exchange concerning method employed by the railways of assessing freight charges on cattle consigned to feed lots in the Western Provinces.
- File 44528.*—Application of the Province of British Columbia for removal of the Mountain Differential.
- File 7287.28.*—Application of residents of Sainte Anne des Plainnes, Que., for the privilege of using commutation tickets between Bruchesi Station and Montreal.
- File 45455.*—Application of Northern Builders' Supply Company, North Bay, Ont., with respect to C.O.D. shipments made to Hearst, Ont.
- File 19475.126.*—Complaint of Ontario Hog Producers' Association, Toronto, with respect to minimum carload weight on livestock applied by the Pere Marquette and Michigan Central Railroads.
- File 30686.15.*—Enquiry of Midland Pacific Terminals Ltd., Vancouver, concerning the matter of application of export rates on wheat and flour when processed and manufactured into macaroni, spaghetti, etc., for export.
- File 4214.721.*—Application of the Village of Ste. Anne de Chicoutimi, Que., for express delivery service.
- File 3574.465.*—Application of Mr. Arthur L. Guess, Toronto, Ont., for telephone service.
- File 3574.504.*—Application of Mr. Adelard Cyr, Ste. Scholastique, Que., for telephone service.
- File 44482.1.*—Application of Mr. George A. Haeker, Calahad, Alta., and Duncan Produce Co., Kerrobert, Sask., concerning increase in the minimum charge on bread and eggs by express.
- File 1700.439.*—Application of Miss Sophie Kohen, Toronto, Ont., with regard to demurrage charges assessed on Car WTLX 45760 at Montreal.
- File 4214.640.*—Application of the residents of the Hamlet of Newcastle (Drumheller, Alta.) requesting an extension of the express cartage limits.
- File 27635.12.*—Application of Mr. Louis-Philippe Cliche, K.C., Lac Megantic, Que., for establishment of a special commodity rate on crushed stone from St. Samuel Station to Montreal.
- File 4214.95.*—Application of Mr. R. F. Lambert, Edmonton, Alta., and the West Jasper Place Taxpayers' Association, concerning delivery of freight and express shipments.
- File 29159.682.*—Application of Mr. Claude Dore, Montreal, Que., for telephone service.

- File 3574.505.*—Application of Mr. H. Dufresne and Mr. Antoine Guertin of St. Pie, Que., for telephone service.
- File 29159.683.*—Application of Mr. E. Bourdon, Montreal, Que., for telephone service.
- File 1700.440.*—Application of British Columbia Lumber Manufacturers with regard to the assessment of car demurrage for Saturdays.
- File 1700.219.*—Application of The Halford-Lewis Company, Montreal, Que., concerning the free time allowance under the Car Demurrage Tariff for clearance of customs.
- File 27425.189.*—Complaint of North American Cyanamid Ltd., regarding rate on coal from Suspension Bridge to Niagara Falls.
- File 4397.99.*—Application of National Dairy Council of Canada for reduction in classification on ice cream and ice cream mix.
- File 29159.684.*—Application of Mr. J. M. Contant, Montreal, Que., for telephone service.
- File 18540.45.*—Application of Mr. R. T. Lafond, Ste. Agathe des Monts, Que., for telephone service.
- File 29159.685.*—Application of Mrs. Beatrice Billard, Montreal, Que., for telephone service.
- File 8641.28.*—Application of Canadian Copper Refiners, Ltd., and Robin Hood Flour Mills Ltd., Montreal, with respect to the application of stop-off and out-of-line haul charges.
- File 18540.4.*—Application of Mr. J. H. Siple, R.R. 5, St. Thomas, Ont., for Bell Telephone Service.
- File 45536.*—Application of the Candle Manufacturers' Association of Canada, for reduction in freight rates on raw material and products used in the candling industry.
- File 38355.1.*—Application of Polymer Corporation Ltd., Sarnia, Ont., for reduction in rates on synthetic rubber from Sarnia to consuming points in Canada.
- File 38355.2.*—Application of Polymer Corporation Ltd., Sarnia, Ont., for reduction in the export rates on rubber from Sarnia, Ont., to Montreal and Atlantic Ports for export.
- File 27425.190.*—Application of Simcoe Board of Trade concerning freight rates on coal to Simcoe vs. Brantford.
- File 45546.*—Application of Oshawa Chamber of Commerce concerning express rates on drugs and drug products shipped by the Anglo-Canadian Drug Company from Oshawa.
- File 42780.*—Application of the Quebec Chamber of Commerce regarding the relationship of the rates on cigarettes and tobacco from Quebec to Vancouver vs. to Winnipeg and Calgary.
- File 3574.506.*—Application of Mr. Richard Coon, Hamilton, Ont., for telephone service.
- File 42076.38.*—Northern Transportation Co. Ltd., report that the British Columbia Mackenzie Navigation Co. is engaging in transportation from Fort Simpson to Aklavik without licence.
- File 4214.1604.*—Application of the North Battleford Board of Trade, with respect to express rates on live poultry to North Battleford versus Saskatoon.
- File 29159.686.*—Application of Mr. Rene Durand, Montreal, Que., for telephone service.
- File 43922.*—Application of the Ontario Elevators Association et al, with respect to rates on soya beans.
- File 43268.3.*—Northern Transportation Company report that lumber shipments are being handled into Yellowknife by unlicensed operators.
- File 11830.7.*—Application of R. H. MacNeill, Board Director, Hudson Bay Route Association, with respect to freight traffic matters on the Hudson Bay Railway.
- File 42076.35.*—Complaint that Charles Sanders, Yellowknife, N.W.T., has exceeded the provisions of Licence No. C.T.C. (W.T.) 178.
- File 30686.15.*—Application of Master Baker Flour Mills Ltd., Vancouver, B.C., concerning export rates on wheat converted into macaroni, spaghetti and noodles for export.
- File 42076.38.*—Application of British Columbia Mackenzie Navigation Company Ltd., for a water licence.
- File 29159.687.*—Application of Raymond Laroche, Montreal, for telephone service.
- File 3574.508.*—Complaint of Dr. Rolland Christin, Montreal, re mileage charges on telephone service.
- File 8641.83.*—Application of Brandon Packers Ltd., with respect to item 340, C.N. Rlys. Tariff C.T.C. W-1909, with regard to stopping and storing in transit privileges.
- File 3574.509.*—Application of Mr. Gustav Caspar Zenkovits, New York, N.Y., for extension of telephone service to his property at Lac Noire, Terrebonne, Que.
- File 30686.26.*—Application of Maple Leaf Milling Company, respecting certain rates on grain and grain products published in C.P. and C.N. Rlys. tariffs.
- File 29159.688.*—Application of Mrs. Kay Minogianis, Montreal, for telephone service.

- File 44891.*—Application of the Alberta Feed Growers Co-Operative Ltd., concerning rates on sweet clover seed in bulk in lieu of sacks.
- File 18540.4.*—Complaint of Hawkins Motors Limited, Vancouver, with respect to telephone service between Vancouver and Victoria.
- File 29159.689.*—Application of Mr. Lucien Morin, 6790 Urbain St., Montreal, for telephone service.
- File 1700.441.*—Application of Maritime Co-Operative Services Ltd. concerning the matter of demurrage charges.
- File 45464.*—Application of L. M. Reilly, Canadian General Electric Co. Ltd., with respect to Rule 10, Canadian Freight Classification—mixed carloads.
- File 45602.*—Application of Mrs. Peter Hutchison as to the charge for two week-end passenger fares from East Coulee to Calgary and return.
- File 29064.13.*—Application of Dominion Tar & Chemical Company, Ltd., respecting rates on salt from Waterways, Alta., vs. Lindbergh, Alta., to destinations in Saskatchewan.
- File 38503.*—Complaint of Mr. Maurice Dussault, Gaspé, P.Q., against telephone charges of the Bonaventure & Gaspé Telephone Co.
- File 43411.*—Complaint of McMillan & Skinner, West Lorne, Ont., with respect to movement of fresh fish to Hamilton, Ont.
- File 496.27.87.*—Application of Mr. W. M. Benidickson, M.P., with respect to transportation of Ministers of Religion on the Bridge between Fort Frances and International Falls, Minn.
- File 45582.*—Complaint of Mr. George Simon, Alexandria, Ont., with respect to application of the Railway Association of Canada for an increase of 20 per cent in rates.
- File 45628.*—Application of Tisdale and District Board of Trade concerning the movement of rape seed in bulk to points in the United States.
- File 18540.4.*—Enquiry of Mr. Jos. Laferte with regard to message toll service of the Bell Telephone Company for distances up to 12 miles.
- File 45627.*—Enquiry of E. D. Smith & Sons, Ltd., Winona, Ont., with regard to filing of tariffs and charging rates by Railways.
- File 32560.*—Application of the Corporation of the District of Surrey, B.C., with regard to the proposal of the British Columbia Telephone Company with respect to the rate structure in the Cloverdale Exchange area.
- File 45582.1.*—Application of Mr. H. A. M. Howland, Consolidated Rendering Company, Boston, Mass., concerning certain increases in competitive rates published by the Canadian Railways effective September 15, 1948.
- File 3574.510.*—Application of Mr. M. A. Brochu, Lévis, Que., for telephone service.
- File 44328.*—Mountain Differential—Pacific Rate Territory.
- File 4214.1609.*—Enquiry from Mr. Rixon Rafter, Enterprise News, Arthur, Ont., regarding express rates.
- File 45619.*—Enquiry of the External Affairs Dept. re rates to and from Newfoundland.
- File 28233.*—Enquiry of T. J. Ryan, President, Canadian Livestock Sales Agencies Ltd., re valuation of livestock under livestock contract.
- File 45464.*—Application of L. M. Reilly, Manager, Traffic Division, General Electric Co., concerning the provisions of Rule 10, Canadian Freight Classification.
- File 29159.690.*—Application of Dr. Gerard Leonard, Montreal, for telephone service at the residence of his nurse, Miss Lucile Pintal, 7074 de St.-Vallier St., Montreal.
- File 45620.*—Application of J. A. Brass, Secretary, Railway Association of Canada, with respect to special freight and passenger privileges for missionary work account The Indian School Administration.
- File 27007.*—Application of R. B. Calhoun, Beauharnois, Que., requesting the rate on wooden material (plywood) from Scotstown, Que., to Beauharnois, Que., during the years 1947 and 1948.
- File 39422.2.*—Application of Canadian Fruit Wholesalers' Ass'n., with respect to rates on vegetables from U.S. South Coast points to Port Arthur, Fort William and West Fort William, Ont.
- File 30633.*—Application of Fisheries Council of Canada with respect to proposed increase in United States railway express charges on shipments of fish.
- File 43723.*—Application of Mr. Gleason Belzile, concerning the establishment of pool car freight rates from Montreal and Quebec to Sayabec, Que.
- File 43356.8.*—Resolution of the National Retail Lumbermen's Council of Canada, with regard to the penalty demurrage charges for delay to freight cars.
- File 1700.99.1.*—Application of W. J. Edwards, Longlac Pulp & Paper Co., concerning exemption of assessment of demurrage charges on private tank cars containing caustic soda.

- File 29159.675.*—Application of Mr. Gabriel M. Proulx, Montreal, for telephone service.
- File 19419.*—Application of International Union of Students re students' fares.
- File 1700.65.*—Application of United Grain Growers' Ltd., with respect to detention charges on refrigerator cars.
- File 45704.*—Application of Distillers Corporation Ltd., Ville La Salle, Que., re switching rate on shipments of final molasses from Hochelaga to Ville La Salle.
- File 29159.692.*—Application of Mrs. Josephine Bienvenue, Montreal, for telephone service.
- File 9451.*—Application of the Canadian Pacific and Canadian National Railways to increase standard tariffs of sleeping and parlour car fares.
- File 12256.5.*—Application of Mayor C. A. Comeau, St. Lambert, Que., with respect to increased passenger fares on the Montreal and Southern Counties Railway.
- File 27434.8.*—Application of J. H. Scott Company, San Francisco, with regard to rates on ores and concentrates from Vancouver, B.C., to Bradley, Idaho.
- File 3574.512.*—Application of Mr. Stanislas Auger, Ste. Anne des Plaines, Que., for telephone service.
- File 3574.513.*—Application of Mrs. Wesley D. Blackshaw, Otterburn Park, Que., for telephone service.
- File 38503.*—Complaint of Miss Kathleen Hardy, Chandler, Que., about charges of the Bonaventure & Gaspé Telephone Co. for telephone service.
- File 4214.1616.*—Resolution of the Village of Grande-Baie, Que., that free express delivery service at Bagotville and Port Alfred be extended to include Grande-Baie.
- File 29159.693.*—Application of Mr. Romeo Lauzon, Montreal, for telephone service.
- File 27425.191.*—Application of A. R. Gordon, Edmonton, with regard to rate on coal from Mileage 10.5 Edmonton Subdivision to Fort Saskatchewan, Alta.
- File 43723.*—Application of Mr. Gleason Belzile, M.P., on behalf of Mr. C. B. Beaudet of Mont Joli, Que., with respect to Canadian National Railway freight rates to Sayabec, Que.
- File 27008.42.*—Complaint of Mr. E. Brandt, Birch River, Man., concerning claim against the C.N. Rlys. for damage due to rough handling.
- File 40994.4.*—Application of McColl-Frontenac Oil Co. for Agreed Charge on petroleum products from Valesso, Alta.
- File 45734.*—Application of S. B. Brown, Canadian Manufacturers' Ass'n. et al with respect to adjustment of freight rates on agricultural implements from Eastern to Western Canada.
- File 29159.664.*—Application of Mr. J. C. A. Gratton, Roxboro, Que. for telephone service.
- File 26901.62.*—Application of Preeceville, Sask., Board of Trade, for an equalized rate with Sturgis, Sask., on lumber shipped in and out of Preeceville.
- File C.921.*—Application of Corporation of Town of Hawkesbury, Ont., concerning increase in passenger fares.

TRAFFIC ORDERS 1948

- Order 70011, January 5.*—Approving revised sheets of Tariff C.T.C. No. 25 filed by the British Columbia Telephone Co.
- Order 70014, January 5.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Section 3.
- Order 70023, January 5.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Railway under Section 9 and certifying normal tolls for reimbursement purposes.
- Order 70024, January 5.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Railway under Section 9 certifying normal tolls for reimbursement purposes.
- Order 70052, January 8.*—Approving Agreement between the Bell Telephone Company and The North American Telegraph Co.
- Order 70063, January 12.*—Approving Appendix "A" and Supplement 2 to Traffic Agreement between the Bell Telephone Company and the Southwold and Dunwich Telephone Ass'n. Ltd.
- Order 70069, January 14.*—Permitting the Bell Telephone Company to discontinue reduced night and Sunday rates of \$9.00 for overseas service between Canada and Switzerland, effective February 1, 1948.
- Order 70070, January 14.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Section 9 and certifying normal tolls for reimbursement purposes.

- Order 70071, January 14.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Section 9 and certifying normal tolls for reimbursement purposes.
- Order 70074, January 13.*—Authorizing issuing of Licence No. C.T.C. (W.T.) 164 to Yellowknife Transportation Co. Ltd.
- Order 70076, January 14.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Section 3.
- Order 70077, January 14.*—Authorizing issuing of Licence No. C.T.C. (W.T.) 165 to McInnes Products Corporation Ltd.
- Order 70101, January 20.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Sydney & Louisburg Rly. under Section 9 and certifying normal tolls for reimbursement purposes.
- Order 70102, January 20.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Sydney & Louisburg Rly. under Section 9 and certifying normal tolls for reimbursement purposes.
- Order 70137, January 28.*—Approval of Agreed Charge on petroleum products for Husky Oil and Refining Ltd., from Borradaile, Alta., Lloydminster, Alta-Sask., and Lone Rock, Sask., to points in the Provinces of Alberta and Saskatchewan.
- Order 70138, January 29.*—Approval of Agreed Charge on petroleum products for Imperial Oil Limited, McColl-Frontenac Oil Company, Ltd., and North Star Oil Limited, from Calgary, Alberta, to points in the Provinces of Alberta and Saskatchewan.
- Order 70166, February 2.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Section 3.
- Order 70186, February 4.*—Authorizing issuing of Licence No. C.T.C. (W.T.) 167 to Canadian Pacific Railway Company.
- Order 70190, February 4.*—Authorizing issuing of Licence No. C.T.C. (W.T.) 166 to Northern Transportation Company, Ltd.
- Order 70201, February 6.*—Approving Supplement 1 to Service Station Contract between the Bell Telephone Company and the Bastien Service Station System.
- Order 70203, February 6.*—Approving Traffic Agreement between the Bell Telephone Company and The Campbell's Bay Rural Telephone Co. Ltd.
- Order 70214, February 12.*—Approving Traffic Agreement between the Bell Telephone Company and La Corporation de Telephone de Quebec.
- Order 70215, February 12.*—Approving Traffic Agreement between the Bell Telephone Company and La Compagnie de Telephone Nationale.
- Order 70217, February 12.*—Approving Traffic Agreement between the Bell Telephone Company and La Compagnie Canadienne de Telephone.
- Order 70218, February 12.*—Approving Traffic Agreement between the Bell Telephone Company and La Compagnie de Telephone Saguenay-Quebec.
- Order 70219, February 12.*—Approving Traffic Agreement between the Bell Telephone Company and La Compagnie de Telephone Portneuf et Champlain.
- Order 70224, February 13.*—Amending Order No. 70190, dated February 4, 1948, by adding sixteen ships to those listed in Licence issued to Northern Transportation Co. Ltd.
- Order 70229, February 14.*—Authorizing issuing of Licence No. C.T.C. (W.T.) 168 to Hudson's Bay Company.
- Order 70230, February 13.*—Amending Order No. 70077, dated January 14, 1948, by adding twenty-five ships to those listed in licence issued to McInnes Products Corporation, Ltd.
- Order 70232, February 16.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Railway under Section 9 and certifying normal tolls for reimbursement purposes.
- Order 70238, February 17.*—Authorizing issuing of Licence No. C.T.C. (W.T.) 169 to Canada Steamship Lines Ltd.
- Order 70239, February 17.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 70242, February 17.*—Authorizing issuing of Licence No. C.T.C. (W.T.) 170 to Canada Steamship Lines Ltd.
- Order 70246, February 18.*—Authorizing issuing of Licence No. C.T.C. (W.T.) 171 to Northwest Steamships Ltd.
- Order 70248, February 18.*—Approving revised sheets of tariffs C.T.C. Nos. 6652 and 6668 filed by the Bell Telephone Company.
- Order 70253, February 18.*—Approving Supplement No. 1 to Standard Tariff C.T.C. No. 3 filed by McInnes Products Corporation Ltd.
- Order 70261, February 19.*—Approving Appendix "A" to Traffic Agreement between the Bell Telephone Company and La Compagnie de Telephone St. Valere de Bulstrade.

- Order 70273, February 23.*—Authorizing issuing of Licence No. C.T.C. (W.T.) 172 to the Ontario Car Ferry Co. Ltd.
- Order 70290, February 26.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Temiscouata Railway under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70293, February 26.*—Approving Appendix "A" to Traffic Agreement between the Bell Telephone Company and The Commissioners for the Telephone System of the Municipality of the Township of Johnson.
- Order 70297, February 27.*—Approving Appendix "A" to Traffic Agreement between the Bell Telephone Company and Commissioners for the Telephone System of the Municipality of the Township of Laird.
- Order 70298, February 27.*—Approving Appendix "A" to Traffic Agreement between the Bell Telephone Company and Commissioners for the Telephone System of the Municipality of the Township of St. Joseph.
- Order 70299, February 27.*—Approving Appendix "A" to Traffic Agreement between the Bell Telephone Company and Commissioners for the Telephone System of the Municipality of the Township of Tarbutt and Tarbutt Additional
- Order 70306, March 1.*—Approving Appendix "A" to Traffic Agreement between the Bell Telephone Company and La Compagnie de Telephone de St. Rosaire.
- Order 70307, March 1.*—Approving Supplement 2 to Traffic Agreement between the Bell Telephone Company and Alexandre Hebert (Telephone de Lotbiniere et Nicolet).
- Order 70308, March 1.*—Approving Traffic Agreement between the Bell Telephone Company and Madame Alexandre Hebert (Telephone de Lotbiniere et Nicolet).
- Order 70319, March 2.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70320, March 3.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Temiscouata Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70324, March 4.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 70326, March 4.*—Authorizing issuing of Licence No. C.T.C. (W.T.) 173 to Sarnia Steamships Ltd.
- Order 70327, March 4.*—Authorizing issuing of Licence No. C.T.C. (W.T.) 174 to Colonial Steamships Ltd.
- Order 70353, March 8.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 70360, March 10.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70364, March 11.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Railway under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70370, March 12.*—Authorizing issuing of Licence No. C.T.C. (W.T.) 175 to Niagara, St. Catharines and Toronto Rly.
- Order 70371, March 12.*—Approving Supplement 3 to Service Station Contract between the Bell Telephone Company and the Ryde Municipal Telephone System.
- Order 70404, March 19.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 70405, March 19.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70406, March 17.*—Approving Supplement 15 to Canadian Freight Classification No. 19.
- Order 70410, March 18.*—Authorizing and approving certain conditions with respect to release of liability on Canadian National Railways' ticket forms.
- Order 70418, March 22.*—Approving revised sheets of Tariff C.T.C. No. 25 filed by the British Columbia Telephone Co.
- Order 70425, March 30.*—Authorizing railway companies to increase freight rates by twenty-one per cent with certain exceptions effective on not less than three days' notice; also, railway and express companies to adjust competitive rates below normal rates established to meet motor truck and/or water competition, or other form of competition.
- Order 70427, March 30.*—Approving Supplement 1 to Standard Passenger Tariff C.T.C. No. P-4 and revised pages of Standard Freight Tariff C.T.C. No. F-5 filed by the Hudson's Bay Co.

- Order 70432, March 30.*—Authorizing issuing of Licence No. C.T.C. (W.T.) 176 to Upper Lakes & St. Lawrence Transportation Co. Ltd.
- Order 70433, March 30.*—Amending Order No. 70190 with respect to Licence No. C.T.C. (W.T.) 166 issued to Northern Transportation Co. Ltd.
- Order 70434, March 30.*—Approving Supplement 1 to Niagara, St. Catharines and Toronto Railway Co.'s Standard Passenger Tariff C.T.C. No. 500.
- Order 70445, April 2.*—Approving Standard Freight Tariffs of Maximum Mileage Tolls filed by railway companies pursuant to the provisions of the Board's Order No. 70425.
- Order 70446, April 1.*—Authorizing issuing of Licence No. C.T.C. (W.T.) 177 to Abitibi Navigation Co. Ltd.
- Order 70449, April 1.*—Amending Appendix "A" to Order No. 68549, dated January 31, 1947, with respect to mileage distances of licensed water carriers within the watershed of the Mackenzie River.
- Order 70451, April 1.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 70462, April 5.*—Amending Order No. 70425, sub-paragraph (4) of paragraph numbered 8, re joint international rates.
- Order 70474, April 5.*—Approving By-law No. 25 of the Canadian National Railways authorizing officers of the express department to prepare and issue tariff of tolls to be charged.
- Order 70476, April 6.*—Approving under Maritime Freight Rates Act tolls published in tariffs by C.N.R. under Sec. 3.
- Order 70480, April 8.*—Providing for modification of Agreed Charges to the extent that they may be increased in the same manner as prescribed in the Board's Order No. 50425, dated March 30, 1948.
- Order 70488, April 8.*—Approving Supplement 1 to Service Station Contract between the Bell Telephone Company and the Hartman Private Telephone Line.
- Order 70497, April 10.*—Authorizing issuing of Licence No. C.T.C. (W.T.) 178 to Charles Sanders.
- Order 70498, April 10.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Freight Association under Sections 3 and 9 and certifying normal tolls for reimbursement purposes.
- Order 70499, April 10.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70511, April 14.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70512, April 14.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70514, April 14.*—Approving Standard Freight Tariff C.T.C. No. 2 filed by Northern Transportation Co. Ltd.
- Order 70517, April 16.*—Approving Standard Freight Tariff C.T.C. No. 397 of the Napierville Junction Rly.
- Order 70518, April 16.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Freight Association under Sections 3 and 9 and certifying normal tolls for reimbursement purposes.
- Order 70519, April 15.*—Approving Supplement 3 to Traffic Agreement between the Bell Telephone Company and the Glengarry Telephone Co. Ltd.
- Order 70520, April 15.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70521, April 17.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Cumberland Rly. and Coal Co., under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70522, April 17.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Sydney & Louisburg Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70523, April 16.*—Directing, upon the application of Wong and Tetlock Lumber Company, the fixing of charges upon the same basis and subject to the same conditions as the Agreed Charge approved by Order 59787, dated October 18, 1940, with the increases authorized by Order 70480, dated April 8, 1948, for the transportation of lumber and forest products shipped by the applicant from Spur, mileage 54.2 Erwood Subdivision of the Canadian National Railways in Manitoba.

- Order 70530, April 20.*—Authorizing increases in through rates and charges on freight traffic between the United States and Canada, also between points in the United States through Canada, to conform (with some exceptions) to increases granted by the Interstate Commerce Commission in Ex Parte 166 to carriers operating in the United States; also, authorizing increases in import and export freight rates between Canadian points and Canadian, St. Lawrence, Atlantic and Pacific ports to extent necessary to maintain parity with rates to and from United States ports; for similar adjustment in tariffs applicable on traffic to and from Newfoundland and the Islands of St. Pierre and Miquelon to maintain such relationship or parity.
- Order 70531, April 19.*—Extending the time within which the Provinces of British Columbia and Alberta may apply to the Board for leave to appeal to the Supreme Court of Canada from Order 70425, dated March 30, 1948, authorizing railway and express companies to increase freight and express rates.
- Order 70533, April 20.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 70534, April 20.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Railway under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70543, April 22.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Temiscouata Rly. under Sections 3 and 9 and certifying normal tolls for reimbursement purposes.
- Order 70544, April 22.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Temiscouata Rly. under Sections 3 and 9 and certifying normal tolls for reimbursement purposes.
- Order 70545, April 22.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Temiscouata Rly. under Sections 3 and 9 and certifying normal tolls for reimbursement purposes.
- Order 70546, April 22.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Temiscouata Rly. under Sections 3 and 9 and certifying normal tolls for reimbursement purposes.
- Order 70547, April 22.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Temiscouata Rly. under Sections 3 and 9 and certifying normal tolls for reimbursement purposes.
- Order 70548, April 22.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Temiscouata Rly. under Sections 3 and 9 and certifying normal tolls for reimbursement purposes.
- Order 70549, April 21.*—Approving By-Law No. 63 of the Esquimalt and Nanaimo Rly. authorizing certain officers to issue tariffs of tolls to be charged for the carriage of freight and passenger traffic.
- Order 70551, April 23.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Cumberland Railway & Coal Co. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70554, April 24.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Sydney & Louisburg Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70568, April 27.*—Extending the time within which the Provinces of British Columbia, Alberta, Saskatchewan and Manitoba may apply to the Board for leave to appeal to the Supreme Court from Order No. 70425 until 31st day of May, 1948.
- Order 70579, April 29.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canada & Gulf Terminal Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70580, April 29.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canada & Gulf Terminal Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70581, April 29.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canada & Gulf Terminal Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70582, April 29.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canada & Gulf Terminal Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70584, April 30.*—Approving Supplement 17 to Canadian Freight Classification No. 19.
- Order 70587, April 30.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 70588, April 30.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Temiscouata Rly. under Sections 3 and 9 and certifying normal tolls for reimbursement purposes.

- Order 70589, April 30.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Temiscouata Rly. under Sections 3 and 9 and certifying normal tolls for reimbursement purposes.
- Order 70591, April 29.*—Setting the time limit for filing and delivery of answer to the application of the Province of British Columbia for an Order directing the railway companies to eliminate the so-called "mountain differential" from all tariffs which give effect to the said differential.
- Order 70608, May 5.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Temiscouata Rly. under Sections 3 and 9 and certifying normal tolls for reimbursement purposes.
- Order 70609, May 5.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Temiscouata Rly. under Sections 3 and 9 and certifying normal tolls for reimbursement purposes.
- Order 70610, May 5.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Freight Association under Sections 3 and 9 and certifying normal tolls for reimbursement purposes.
- Order 70611, May 5.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 70615, May 5.*—Approving Appendix "A" to Traffic Agreement between the Bell Telephone Company and La Compagnie de Telephone de Nicolet Ltee.
- Order 70621, May 7.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 70631, May 7.*—Directing, upon the application of the Reston Creamery, the fixing of charges upon the same basis and subject to the same conditions as the Agreed Charge approved by Order 60373, dated February 26, 1941, with the increases authorized by Order 70480, dated April 8, 1948, for the transportation of eggs shipped by the Applicant from Reston, Man., to Winnipeg, Man.
- Order 70641, May 13.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70642, May 13.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70643, May 12.*—Approving By-law of the Vancouver and Lulu Island Railway Co., authorizing certain officers to prepare and issue tariffs of tolls to be charged for the carriage of freight traffic.
- Order 70649, May 14.*—Approving Supplement 2 to Traffic Agreement between the Bell Telephone Company and Yarker Radio and Telephone Service.
- Order 70655, May 17.*—Extending the time within which the Provinces of British Columbia Alberta, Saskatchewan and Manitoba may apply to the Board for leave to appeal to the Supreme Court of Canada from Order No. 70425, dated March 30, 1948.
- Order 70659, May 17.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70664, May 19.*—Authorizing issuing of Licence No. C.T.C. (W.T.) 179 to the Georgian Bay Tourist Company of Midland.
- Order 70665, May 19.*—Directing, upon the application of Hayward Lumber Sales, the fixing of charges upon the same basis and subject to the same conditions as the Agreed Charge approved by Order 59787, dated October 18, 1940, with the increases authorized by Order 70480, dated April 18, 1948, for the transportation of lumber and forest products from Lac La Biche, Alberta.
- Order 70671, May 21.*—Approving Supplement 1 to Service Station Contract between the Bell Telephone Company and the Donnacona Paper Co. Ltd.
- Order 70672, May 21.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 70673, May 21.*—Approving Appendix "A" to Traffic Agreement between the Bell Telephone Company and La Compagnie de Telephone Soulanges, Ltee.
- Order 70679, May 21.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Sydney & Louisburg Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70681, May 22.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Cumberland Rly. & Coal Co. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70683, May 22.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Temiscouata Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70684, May 22.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Temiscouata Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.

- Order 70685, May 22.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Temiscouata Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70697, May 28.*—Approving Standard Mileage Freight Tariff C.T.C. No. 273 of the Quebec Railway, Light & Power Co.
- Order 70699, May 27.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Temiscouata Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70700, May 27.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Maritime Coal Rly. & Power Co. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70707, May 28.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70716, June 1.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 70745, June 9.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 70746, June 9.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 70749, June 9.*—Approving revised sheets of tariffs C.T.C. Nos. 6652 and 6746, also Supplement 6 to tariff C.T.C. No. 6668, filed by the Bell Telephone Company.
- Order 70751, June 10.*—Dismissing complaint of the Municipality of St. Dunstan, Que., against Bell Telephone Company service and charges.
- Order 70754, June 9.*—Approving revisions in Standard Tariff C.T.C. No. 5 filed by the Yellowknife Transportation Co. Ltd.
- Order 70758, June 11.*—Directing, upon the application of Northern Planing Mill, Hystad Brothers and Barrows Lumber Co. the fixing of charges upon the same basis and subject to the same conditions as the Agreed Charge approved by Order 59787, dated October 18, 1940, with the increases authorized by Order 70480, dated April 18, 1948, for the transportation of lumber and forest products from Grande Prairie, Alta., Dimsdale, Alta., and Barrows, Man.
- Order 70772, June 14.*—Extending the time within which the Provinces of British Columbia, Alberta, Saskatchewan and Manitoba may apply to the Board for leave to appeal to the Supreme Court of Canada from Order 70425, dated March 30, 1948.
- Order 70789, June 17.*—Approving By-law of the British Columbia Electric Railway Co., authorizing certain officers to prepare and issue tariffs of tolls to be charged for the carriage of traffic.
- Order 70790, June 17.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 70796, June 18.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 70797, June 18.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Freight Association under Sections 3 and 9 and certifying normal tolls for reimbursement purposes.
- Order 70798, June 18.*—Approving By-law of the Toronto, Hamilton and Buffalo Railway Co., authorizing certain officers to prepare and issue tariffs of tolls to be charged for the carriage of traffic.
- Order 70898, June 23.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Railway under Section 9 and certifying normal tolls for reimbursement purposes.
- Order 70821, June 24.*—Approving Supplement 2 to Service Station Contract between the Bell Telephone Company and the Ayr Rural Telephone Co. Ltd.
- Order 70822, June 25.*—Approving Supplement 3 to Exchange and Toll Line Agreement between the Bell Telephone Company and the Huntsville, Lake of Bays and Lake Simcoe Navigation Co. Ltd.
- Order 70825, June 25.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70828, June 25.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Railway under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70829, June 25.*—Approving Appendix "A" to Traffic Agreement between the Bell Telephone Company and La Cie. de Telephone de Disraeli.

- Order 70835, June 28.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 70842, June 29.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 70846, June 29.*—Approving conditions limiting liability contained in franks of Canadian Pacific Express Company for free transportation of personal packages.
- Order 70852, June 30.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Freight Association under Secs. 3 and 9 and certifying normal tolls for reimbursement purposes.
- Order 70853, July 2.*—Approving Appendix "A" to Traffic Agreement between the Bell Telephone Company and La Compagnie de Telephone de Charlevoix et Saguenay.
- Order 70854, July 2.*—Approving Traffic Agreement between the Bell Telephone Company and Austin Telephones Ltd.
- Order 70855, July 2.*—Approving Supplement 2 to Traffic Agreement between the Bell Telephone Company and Murray Brighton Telephone System.
- Order 70857, July 6.*—Approving Supplement 2 to Traffic Agreement between the Bell Telephone Company and Huntsville and Lake of Bays Telephone Co.
- Order 70859, July 6.*—Approving Appendix "A" to Traffic Agreement between the Bell Telephone Company and Balderson Telephone Co. Ltd.
- Order 70860, July 6.*—Approving Telephone Agreement between the Bell Telephone Company and Manitoba Telephone System.
- Order 70862, July 6.*—Approving Supplement 1 to Service Station Contract between the Bell Telephone Co. and Dover Municipal Telephone System.
- Order 70863, July 6.*—Approving Appendix "A" to Traffic Agreement between the Bell Telephone Company and Arden Telephone System.
- Order 70866, July 5.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70867, July 7.*—Approving Supplement 2 to Traffic Agreement between the Bell Telephone Co. and G. E. Wheeler Telephone Company.
- Order 70885, July 9.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70889, July 9.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 70895, July 13.*—Approving revised sheets of Tariff C.T.C. No. 25 filed by the British Columbia Telephone Co.
- Order 70904, July 13.*—Directing upon the application of Imperial Oil Ltd., the fixing of charges upon the same basis and subject to the same conditions as the Agreed Charge approved by Order 70138, dated January 29, 1948, for the transportation of petroleum products from Valesso, Alta.
- Order 70908, July 14.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70912, July 14.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Railway under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70920, July 15.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70921, July 15.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70925, July 16.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 70926, July 16.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 70970, July 27.*—Approving Supplement 2 to Traffic Agreement between the Bell Telephone Company and Commissioners for the Telephone System of the Municipality of the Township of Pelee Island, Ont.
- Order 70975, July 27.*—Approving Traffic Agreement between the Bell Telephone Co. and La Compagnie de Telephone de St. Raphael.
- Order 70976, July 27.*—Approving Supplement 2 to Traffic Agreement between the Bell Telephone Company and La Compagnie de Telephone de St. Raphael.
- Order 70977, July 27.*—Approving Traffic Agreement between Bell Telephone Co. and La Societe de Telephone d'Aston Jct.
- Order 70978, July 27.*—Approving Supplement 1 to Traffic Agreement between Bell Telephone Company and Belvidere Telephone Syndicate.

- Order 70989, July 30.*—Directing that tariffs may be filed with the Board on not less than fifteen days' notice to effect adjustment of rates and charges to the basis further authorized by the Interstate Commerce Commission.
- Order 70991, July 30.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71004, August 5.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Railway under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71007, August 6.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Freight Association under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71008, August 5.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71009, August 6.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71010, August 5.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71020, August 9.*—Approving Appendix "A" to Traffic Agreement between Bell Telephone Company and La Compagnie de Telephone de St. Ephrem de Bagot.
- Order 71021, August 10.*—Approving Appendix "A" to Traffic Agreement between Bell Telephone Company and The Masham Telephone Co. (Inc.)
- Order 71023, August 10.*—Approving Appendix "A" to Traffic Agreement between Bell Telephone Company and La Compagnie de Telephone de Weedon.
- Order 71024, August 10.*—Approving Appendix "A" to Traffic Agreement between Bell Telephone Company and La Compagnie de Telephone de la Petite Nation.
- Order 71025, August 10.*—Approving Supplement 2 to Traffic Agreement between Bell Telephone Company and the Clarence Telephone Co. Ltd.
- Order 71026, August 10.*—Approving Service Station Contract between Bell Telephone Company and Dept. of Mines and Resources of Dominion of Canada.
- Order 71027, August 10.*—Approving Supplement 1 to Memorandum of Agreement between Bell Telephone Company and Dept. of Mines and Resources of Dominion of Canada.
- Order 71029, August 10.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Temiscouata Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71031, August 11.*—Approving Traffic Agreement between Bell Telephone Company and New Brunswick Telephone Co. Ltd.
- Order 71035, August 12.*—Approving under Maritime Freight Rates Act tolls published in Tariffs filed by Temiscouata Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71041, August 12.*—Approving under Maritime Freight Rates Act tolls published by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71042, August 12.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Temiscouata Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71052, August 17.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canada & Gulf Terminal Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71053, August 17.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71062, August 17.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71070, August 20.*—Approving under Maritime Freight Rates Act tolls published by Canadian Freight Ass'n. under Secs. 3 and 9 and certifying normal tolls for reimbursement purposes.
- Order 71071, August 20.*—Approving under Maritime Freight Rates Act tolls filed by Canadian Freight Association under Sec. 3.
- Order 71091, August 23.*—Approving Appendix "A" to Traffic Agreement between Bell Telephone Company and Muskoka and Parry Sound Telephone Co. Ltd.
- Order 71102, August 24.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71107, August 27.*—Suspending increased rates on grain and grain products in Supplements 35 and 36 to Tariff C.T.C. No. E-5008 filed by C.P.R. and certain revised pages of Tariff C.T.C. No. E-3867 filed by C.N. Rys.

- Order 71109, August 26.*—Approving Appendix “A” to Traffic Agreement between the Bell Telephone Company and La Corporation de Telephone de Quebec.
- Order 71113, August 27.*—Approving Supplement 1 to Service Station Contract between Bell Telephone Company and The Lanark and Carleton Counties Telephone Co. Ltd.
- Order 71157, September 8.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71160, September 8.*—Amending Order No. 70497 re authorization of Water Licence to Charles Sanders, Yellowknife, N.W.T.
- Order 71184, September 14.*—Approving temporary provision published by the Canadian Freight Association covering release of responsibility in connection with the acceptance of uncleaned clover seed.
- Order 71186, September 14.*—Approving under Maritime Freight Rates Act tolls published in Tariffs filed by Canadian Freight Association under Sections 3 and 9 and certifying normal tolls for reimbursement purposes.
- Order 71189, September 16.*—Approving Agreement between Bell Telephone Company and Canadian Marconi Company.
- Order 71191, September 16.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71192, September 13.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 70201, September 17.*—Approving Appendix “A” to Traffic Agreement between Bell Telephone Company and La Compagnie de Telephone de St. Hubert de Spalding.
- Order 70202, September 17.*—Approving Service Station Contract between Bell Telephone Company and Gatineau Power Co.
- Order 71205, September 17.*—Approving Appendix “A” to Traffic Agreement between Bell Telephone Company and La Compagnie de Telephone Weedon.
- Order 71206, September 17.*—Approving Supplement 2 to Traffic Agreement between Bell Telephone Company and La Compagnie de Telephone Rurale de St. Germain de Grant-ham.
- Order 71207, September 17.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71210, September 17.*—Approving Supplement 2 to Traffic Agreement between Bell Telephone Company and Yarmouth Rural Telephone Co. Ltd.
- Order 71211, September 17.*—Approving Traffic Agreement between Bell Telephone Company and Dennie Telephone System.
- Order 71212, September 17.*—Approving Supplement 2 to Traffic Agreement between Bell Telephone Company and Van Norman Telephone System.
- Order 71219, September 23.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71222, September 23.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Temiscouata Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71223, September 23.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Temiscouata Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71224, September 23.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Temiscouata Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71229, September 24.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71230, September 25.*—Approving Traffic Agreement between Bell Telephone Company and La Compagnie de Telephone de St. Samuel de Gaghurst.
- Order 71234, September 25.*—Approving under Maritime Freight Rates Act tolls published in Temiscouata Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71245, September 29.*—Approving Original and Revised Sheets of Tariffs 6652 and 6668 and Supplement 11 to C.T.C. 6668 of the Bell Telephone Company.
- Order 71247, September 29.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.

- Order 71200, September 29.*—Amending Order 71010 re tariffs filed under Maritime Freight Rates Act approving Tariff C.T.C. No. E-3834 and Supplement 20 thereto filed by C.N.R. under Sec. 3.
- Order 71264, October 4.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71275, October 5.*—Approving Appendix "A" to Traffic Agreement between the Bell Telephone Company and La Compagnie Canadienne de Telephone.
- Order 71278, October 6.*—Approving Standard Passenger Mileage Tariff C.T.C. No. 46 of the British Columbia Electric Rly. Co. Ltd.
- Order 71288, October 6.*—Approving Appendix "A" to Traffic Agreement between Bell Telephone Company and Eastern Townships Telephone Co.
- Order 71289, October 6.*—Approving Memorandum of Agreement between Bell Telephone Company and Wedgewood Hunting and Fishing Club.
- Order 71294, October 5.*—Directing, upon the application of Imperial Lumber Co. Ltd., the fixing of charges upon the same basis and subject to the same conditions as Agreed Charge approved by Order 59787, dated October 18, 1940, with the increases authorized by Order 70480, dated April 18, 1948, for the transportation of lumber and forest products from Kenuso, Alta.
- Order 71302, October 8.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71303, October 8.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71319, October 14.*—Approving Special Contract of Canadian Freight Association for release of responsibility in connection with transportation of apples in bulk during cold weather.
- Order 71322, October 14.*—Amending Order 71192 re approval under Maritime Freight Rates Act of tolls published in certain items of Tariff C.T.C. No. E-4757, filed by C.P.R. under Sec. 9.
- Order 71324, October 15.*—Amending Order 71247 re approval under Maritime Freight Rates Act of tolls published in certain items of tariff C.T.C. No. E-4757 filed by C.P.R. under Sec. 9.
- Order 71335, October 20.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71338, October 20.*—Approving Appendix "A" to Traffic Agreement between the Bell Telephone Company and Le Reseau de Telephone Shawinigan Valley.
- Order 71343, October 20.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71344, October 20.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71345, October 20.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71346, October 20.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71349, October 20.*—Approving Agreement between the Bell Telephone Company and the Trans-Canada Telephone System.
- Order 71367, October 22.*—Approving Supplement 2 to Traffic Agreement between Bell Telephone Company and the Austin Telephones Ltd.
- Order 71374, October 23.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71377, October 25.*—Approval of Amendment to Agreed Charge approved by Order 70137 by increasing the mileage allowance to shippers from 1½ to 2 cents per car mile in lieu of furnishing tank cars.
- Order 71378, October 23.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71379, October 25.*—Approval of Amendment to Agreed Charge approved by Order 59568 by increasing the mileage allowance to shippers from 1½ to 2 cents per car mile in lieu of furnishing tank cars.
- Order 71384, October 26.*—Approving Appendix "A" to Traffic Agreement between the Bell Telephone Company and Commissioners for the Telephone System of the Municipality of Howick.

- Order 71385, October 26.*—Approving Appendix “A” to Traffic Agreement between Bell Telephone Company and The Wroexeter Telephone Co. Ltd.
- Order 71387, October 26.*—Approving Supplement 2 to Traffic Agreement between the Bell Telephone Company and the Apsley Telephone Co. Ltd.
- Order 71389, October 23.*—Approval of Amendment to Agreed Charge approved by Order 68072 by increasing the mileage allowance to shippers from $1\frac{1}{2}$ to 2 cents per car mile in lieu of furnishing tank cars.
- Order 71390, October 26.*—Approving Appendix “A” to Traffic Agreement between the Bell Telephone Company and the Telephone System of the Municipality of Village of Blyth.
- Order 71394, October 27.*—Approval of Amendment to Agreed Charge approved by Order No. 70138 by increasing the mileage allowance to shippers from $1\frac{1}{2}$ to 2 cents per car mile in lieu of furnishing tank cars.
- Order 71399, October 28.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71409, October 28.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71410, October 28.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71420, October 30.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71421, October 30.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71423, November 2.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Cumberland Railway and Coal Co. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71424, November 2.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Cumberland Railway and Coal Co. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71425, November 2.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Cumberland Railway and Coal Co. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71430, November 1.*—Approving Appendix “A” to Traffic Agreement between the Bell Telephone Company and Lyndhurst Rural Telephone Co. Ltd.
- Order 71435, November 5.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Sydney & Louisburg Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71436, November 5.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Sydney & Louisburg Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71437, November 5.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Sydney & Louisburg Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71439, November 2.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71440, November 2.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71458, November 8.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71479, November 10.*—Approving Appendix “A” to Traffic Agreement between Bell Telephone Company and La Corporation de Telephone de Quebec.
- Order 71480, November 9.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71497, November 10.*—Approving Agreement between Bell Telephone Company and Canadian Marconi Company.
- Order 71510, November 13.*—Approving Supplement 1 to Service Station Contract between Bell Telephone Company and Dormin Brook Telephone Line.
- Order 71511, November 13.*—Approving Supplement No. 2 to Agreement between Bell Telephone Company and La Compagnie de Telephone de St. Ours.
- Order 71512, November 13.*—Approving Agreement between Bell Telephone Company and Le Telephone de St. Ours, Enrg.
- Order 71531, November 17.*—Approving Supplement 2 to Traffic Agreement between Bell Telephone Company and Commissioners for Telephone System of the Municipality of the Township of Dunnet.

- Order 71535, November 19.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71539, November 18.*—Approving Traffic Agreement between Bell Telephone Company and La Compagnie de Telephone de St. Denis sur Richelieu.
- Order 71576, November 29.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71577, November 29.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71594, November 29.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Temiscouata Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71596, November 29.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71599, November 30.*—Approving Supplement 4 to Tariff C.T.C. (A.C.) 14 modifying Agreed Charge between the Canadian National Railways and other carriers and the British American Oil Co.
- Order 71602, November 30.*—Rescinding Order No. 71107 which suspended certain increased rates on grain and grain products in packages from origins in the Province of Ontario to Montreal, for export.
- Order 71604, November 30.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71606, November 30.*—Approving Supplement 3 to Tariff C.T.C. (A.C.) 24 modifying Agreed Charge between the Canadian National Railways and other carriers and the Sun Oil Company, Ltd.
- Order 71607, December 1.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71609, December 1.*—Approving Appendix "A" To Traffic Agreement between the Bell Telephone Company and La Compagnie de Telephone de la Petite Nation.
- Order 71629, December 3.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71647, December 6.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71648, December 6.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71657, December 10.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71668, December 10.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71669, December 10.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71670, December 10.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71671, December 11.*—Approving Supplement 2 to Traffic Agreement between the Bell Telephone Company and Canadian National Telegraph Co.
- Order 71679, December 13.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71680, December 13.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71710, December 20.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71722, December 21.*—Approving Appendix "A" to Traffic Agreement between the Bell Telephone Company and The James MacLaren Co. Ltd.
- Order 71723, December 21.*—Approving Appendix "A" to Traffic Agreement between the Bell Telephone Company and Docon Telephones Ltd.
- Order 71728, December 21.*—Approving Agreed Charge between the Canadian Pacific and Canadian National Railways and McColl-Frontenac Oil Co. Ltd., for the transport of petroleum products from Valesso, Alta.
- Order 71734, December 22.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.

- Order 71737, December 23.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71738, December 23.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Freight Association under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71740, December 24.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Temiscouata Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71743, December 21.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Pacific Railway under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71748, December 23.*—Directing, upon the application of Canadian Mineral Spirits Company Limited, the fixing of charges upon the same basis and subject to the same conditions as Agreed Charge approved by Order 60544, dated April 9, 1941, for the transportation of Naptha and Naptha Solvents from Clarkson, Ont.
- Order 71753, December 27.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71754, December 28.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- Order 71755, December 28.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- Order 71760, December 24.*—Approving Supplement 1 to Service Station Contract between the Bell Telephone Company and La Compagnie de Telephone de Sherbrooke Est.
- Order 71769, December 27.*—Approving Appendix "A" to Traffic Agreement between the Bell Telephone Company and Le Telephone de St. Ours, Enrg.
- Order 71774, December 31.*—Authorizing increases in through rates and charges on freight traffic between the United States and Canada, also between points in the United States through Canada, to conform (with some exceptions) to increases granted by the Interstate Commerce Commission in Ex Parte 168 to carriers operating in the United States; also, authorizing increases in import and export freight rates between Canadian points and Canadian, St. Lawrence, Atlantic and Pacific ports to extent necessary to maintain parity with rates to and from United States ports; for similar adjustment in tariffs applicable on traffic to and from Newfoundland and the Islands of St. Pierre and Miquelon to maintain such relationship or parity.

Early in the year Mr. W. E. Campbell, formerly Director of this Department, retired from the public service on superannuation after twenty-six years of faithful and devoted service. Mr. H. W. Ellicott, formerly of the Freight Traffic Department of the Canadian National Railways, joined the staff of the Board as Assistant Director of the Department.

The officers of this Department have attended hearings in Ottawa and at other points in Canada where sittings of the Board took place, in respect of freight rate matters. Sittings concerning the application of the Province of British Columbia for the removal of the Mountain Differential required my absence from the office for the duration of practically one month.

A. S. KIRK,
Director.

OTTAWA, January 25, 1949.

APPENDIX "D"

February 7th, 1949.

The Secretary,

Board of Transport Commissioners for Canada,
Ottawa, Ontario.

Dear Sir:—

I submit herewith my Annual Report and information regarding the work of the Engineering Branch of the Board during the past year, and attach herewith details and summarized statement of works of the Engineering Department during the year 1948.

D. G. KILBURN

Director of Engineering.

INTERLOCKING PLANTS, AND CHANGES TO PLANTS AND SIGNALS

Recommendations were made in connection with changes to 74 interlocking plants, and 37 interlocking plants were inspected in connection with Operating Orders.

When applications are made by the railways for approval of plans, covering the installation of, and changes to, signals and interlocked switches at diamond crossings, bridges, or junctions, a thorough check of track and signal plant is made to ensure that the plant is designed to provide full protection for all train movements through the interlocking, with signals and switches so arranged and interlocked mechanically, electrically, or both, to prevent trains from receiving conflicting indications.

Before the plants were placed in service, the Board's Engineer made a check in the field in all cases to ensure that circuits were installed in accordance with approved plan, and that the signals and switches functioned as intended. Recommendation was made to the Board in all cases in connection with the necessary Operating Order before the plants were put in operation.

PROTECTION AT HIGHWAY CROSSINGS BY WIG-WAGS AND BELLS, FLASHING LIGHT SIGNALS AND BELLS, AND ELECTRIC GATES

During the year there were 80 installations of automatic protection at railway crossings, in addition to some 30 cases of circuit improvement in connection with existing protective devices.

Applications for automatic protection at railway highway level crossings are made by Municipal and Provincial Highway Authorities, sometimes by the Railways. Other cases are brought to the Board's attention by the officers of the Board. All applications do not result in installation of the protection applied for, but in the majority of cases all applications entail an inspection by an Engineer of the Board and his report for the Board's decision.

In the case of all installations the Board's Engineers made inspections and conducted a thorough test to ascertain if the installation had been made in accordance with the approved practice and plans, and if the protection was working in a satisfactory manner. An audit of all costs of protection installed was made by an Engineer of the Board. This involved the checking of all items of

labour, material, as well as the original invoices. Recommendation was then made in connection with payment from the Railway Grade Crossing Fund, or special fund.

There were many inspections made during the year in connection with applications for highway crossing protection which did not result in installation, since as a result of the inspection it was found that conditions did not warrant the protection applied for.

HIGHWAY CROSSINGS OPENED, CLOSED, AND HIGHWAY DIVERSIONS

There were 108 new highway crossings opened during the year and 18 closed, together with 7 highway diversions. The highway crossings opened involved cases where the railway companies wished to extend their tracks across the existing public ways, and where Municipal and Highway Authorities desired to cross existing tracks by new, or diverted, highways.

Plans and profiles of the proposed crossings were carefully examined by Engineers of the Board, in order to endeavour to eliminate any objectionable features, such as obstruction to view, grades of approach, etc., and to bring about the safest possible travel conditions. A great many of the cases applied for required an examination on the ground, and recommendations were made following the inspections. Inspections were made in connection with highway diversions to eliminate wherever possible existing railway crossings.

BRIDGES

During the year there were 130 bridges and subways approved for construction and reconstruction. The use of heavier motive power has made it necessary to carry out various works capable of safely carrying the heavier rolling stock at speeds greatly in excess of those in existence some years ago. This involves strengthening and reconstruction of bridges and culverts. The plans in connection with these structures were all submitted and were examined by an Engineer of the Board, and recommendation was made to the Board in connection therewith. After the structures were completed, examinations were made in all cases by an Engineer of the Board to ascertain if the structures were built according to the approved plan and safe for the carriage of traffic.

In addition to the above, inspections were made of 129 bridges for safety of operation and recommendations made for an Order of the Board authorizing the railway companies to operate over them.

OPERATION OF BRANCH LINES AND INDUSTRIAL SPURS

The Engineering Department examined applications and plans in connection with operation over industrial spurs, and recommendations were made for 45 approving Orders.

MAINTENANCE OF TRACK AND STRUCTURES

One of the important duties of the Engineering Department of the Board is the inspection of track conditions to ensure safety of travel over approximately 56,000 miles of railway trackage in Canada under the Board's jurisdiction. The Board's engineers throughout the year travelled over and inspected all the Main Lines of railway and a considerable mileage of branch lines, to ensure the safety of track for public travel. Particularly close and intensive examination was made of any Subdivision where any accident took place to ensure that standard practice and standard precautions had been taken, and the trackage was being properly maintained.

TUNNELS, WATER, GAS, SEWER PIPES, UNDERGROUND MINE WORKINGS

In addition to the inspections enumerated above, plans were examined in connection with applications for water, gas and sewer pipes passing under the railways. In a number of cases these involved an inspection in the field. Plans were also examined in connection with applications for mining tunnels, and inspections made with regard to the safety of travel through them.

A number of applications were received in connection with underground workings closely approaching the railway right-of-way, and examinations and recommendations were made to ensure every safety precaution for the Board's consideration in issuing Order.

RAILWAY GRADE CROSSING FUND, AND SPECIAL VOTES

In accordance with the provisions of sub-section (5) of Section 262 of the Railway Act, 1909, provision was made that the sum of \$200,000 each year, for ten consecutive years from the first day of April, 1909, be appropriated and set apart from the consolidated revenue fund for the purpose of aiding actual construction work for the protection, safety, and convenience of the public in respect of highway crossings of railways at rail level, in existence on the first day of April, 1909, the said sums to be placed to the credit of a special account to be known as "The Railway Grade Crossing Fund", to be applied by the Board, subject to certain limitations set out in the Act, and amending Acts, solely towards the cost (not including that of maintenance and operation), of actual construction work for the purpose specified. In 1919, the same sum was voted for another ten years and again in 1929.

In 1947 the sum of \$200,000 a year was voted for a period of ten years, and increased to \$400,000 a year in 1948.

An amount of \$500,000.00 was transferred to the Railway Grade Crossing Fund from the Unemployment Relief Fund, 1930, and \$500,000.00 from the Unemployment and Farm Relief Fund 1931-1932; \$500,000.00 by special vote of Parliament in 1934. In 1938, \$300,000.00 was placed in the Railway Grade Crossing Fund in addition to the usual \$200,000.00 and \$500,000.00 was placed in the Railway Grade Crossing Fund by special vote in 1939; \$1,000,000.00 by the Public Works Construction Act, 1935; \$1,000,000.00 by Vote 420, Special Supplementary Estimates, 1936-37; Vote 357, Special Supplementary Estimates, 1937-38, \$1,064,000.00; Vote 630, Supplementary Estimates 1938-39, provided \$1,000,000.00; and Vote 585, Supplementary Estimates 1939-40, provided \$1,000,000.00, making the total provided to the end of the year 1948 of \$14,064,000.00. Out of these funds the sum of \$11,932,941.70 has already been paid.

The funds voted to the Railway Grade Crossing Fund are accumulative, whereas the money provided by the Special Votes had to be committed to projects by the end of the current fiscal year, when the vote elapsed, and funds not already committed were no longer available.

Expenditures from the Railway Grade Crossing Fund were low during the War years due to labour and material being directed to War purposes, and recommendations were only made for protection at highway crossings when absolutely necessary at the time.

In 1928, the Railway Act was amended by Chapter 43, 18-19 George V, and provision was made that in the case of any one crossing the total amount of money to be applied by the Board out of the Railway Grade Crossing Fund, in providing protection, safety and convenience for the public, shall not exceed 40 per cent of the cost of the actual construction work, and in no case shall the contribution exceed \$100,000.00. Under the terms of the Public Works Con-

struction Act, 1935, Vote 420 of the Special Supplementary Estimates, 1936-37; Vote 357 of the Special Supplementary Estimates, 1937-38; Vote 630 Supplementary Estimates, 1938-39; and Vote 585 Supplementary Estimates, 1939-40; grants could be made up to 100 per cent of the cost of construction out of the funds provided under those Acts. Following statements show the distribution of funds provided for the protection of highways crossing railways from 1909, when the first grant was made, to December 31, 1948.

The Engineering Department wishes to express its appreciation of the co-operation extended to it at all times during the past year by officials and Engineers of the Provincial Highways Departments, Municipalities and Railways.

TRANSPORT COMMISSIONERS OF CANADA

STATEMENT SHOWING TOTAL AMOUNT PAID FOR WORK DONE IN THE DIFFERENT PROVINCES OUT OF THE RAILWAY GRADE CROSSING FUND AND SPECIAL VOTES—PERCENTAGE OF TOTAL EXPENDITURE IN EACH PROVINCE, AND PERCENTAGE OF POPULATION OF CANADA IN EACH PROVINCE, 1909 TO DECEMBER 31ST, 1948

Province	Total expenditure from the different Votes	Percentage of total amount of expenditure	Population of Province	Percentage of population of Canada
British Columbia.....	\$ 778,029.89	6.52	1,044,000	8.31
Alberta.....	395,602.51	3.32	822,000	6.55
Saskatchewan.....	644,317.36	5.40	842,000	6.70
Manitoba.....	351,915.71	2.95	743,000	5.92
Ontario.....	5,955,181.09	49.90	4,189,000	33.35
Quebec.....	2,756,782.44	23.10	3,712,000	29.56
New Brunswick.....	300,655.37	2.52	491,000	3.91
Nova Scotia.....	727,696.71	6.10	621,000	4.95
Prince Edward Island.....	22,760.62	.19	94,000	.75
Total.....	\$11,932,941.70	100.	12,558,000	100.

ENGINEERING DEPARTMENT,
JANUARY 6, 1949.

EXPENDITURES FOR PROTECTION AT HIGHWAY CROSSING
1909 TO DECEMBER 31ST, 1948

Province	Grade Crossing Fund	Percentage of Total	Municipalities	Percentage of Total	Railway	Percentage of Total	Total
British Columbia.....	\$ 778,029.89	39.88	\$ 756,978.98	38.81	\$ 415,700.32	21.31	\$ 1,950,709.19
Alberta.....	395,602.51	32.45	418,757.68	34.35	404,874.69	33.20	1,219,234.88
Saskatchewan.....	644,317.36	36.38	786,280.06	44.40	340,346.99	19.22	1,770,944.41
Manitoba.....	351,915.71	43.83	208,517.69	25.97	242,430.19	30.20	802,863.59
Ontario.....	5,955,181.09	20.47	9,389,717.52	32.27	13,748,030.72	47.26	29,092,929.33
Quebec.....	2,756,782.44	38.89	3,392,019.86	47.86	939,144.78	13.25	7,087,946.08
New Brunswick.....	300,655.37	44.88	205,942.13	30.75	163,273.55	24.37	669,872.05
Nova Scotia.....	727,696.71	45.92	600,938.36	37.93	255,860.82	16.15	1,584,495.89
Prince Edward Island.....	22,760.62	60.08	12,822.98	33.85	2,300.94	6.07	37,884.54
Total.....	\$11,932,941.70	26.98	\$15,771,975.26	35.67	\$16,511,963.00	37.35	\$44,216,879.96

The above figures include payments from the Railway Grade Crossing Fund and all other Votes for highway crossing protection.

ENGINEERING DEPARTMENT,
JANUARY 6, 1949.

CONTRIBUTION FROM RAILWAY GRADE CROSSING FUND

Protection	Location	Railway	Per Cent	Con- tributions
Three electric lights on each gate arm.	Rectory Street, London, Ontario.	C.N.R.	40	\$ 228.00
Three electric lights and two flashing light signals and one bell	Main Street, Hagersville, Ontario.	N.Y.C.	40	960.00
Establish sight lines	Crossing in S.W. Quarter Section 27, Township 9, Rge. 18, W4M, Alberta near Cranford	C.P.R.	40	54.00
Two flashing light signals (2) and bell	Levis-Jackman Road, St. Francois de la Beauce, P.Q.	Q.C.R.	40	1,700.00
Establish sight lines	Crossing Highway No. 41, 1-6 miles east of Eganville Station, Ontario	C.N.R.	40	66.00
Traffic lights	Avenue "A" Saskatoon, Saskatchewan	C.P.R.	40	2,400.00
Add three red lights to each of four gate arms	Adelaide Street, London, Ontario	C.N.R.	40	262.00
Two flashing light signals (2) and bell	Royal York Road, Twp. of Etobicoke, Ontario, Mile 7-70 Galt Subdivision	C.P.R.	40	3,000.00
Two flashing light signals (2) and bell	Crossing south of Station at Moorefield, Ont., Mile 65-67 Fergus Subdivision	C.N.R.	40	1,440.00
Two flashing light signals (2) and bell	Eighth Line Road Crossing, $\frac{3}{4}$ Mile East of Oakville Station, Ontario, Mileage 20-55 Oakville Subdivision.	C.N.R.	40	2,600.00
Two flashing light signals (2) and bell	Ogden Avenue, One Quarter Mile East of Lakeview, Ont., Mile 10-84 Oakville Subdivision	C.N.R.	40	3,400.00
Two flashing light signals (2) and bell	Crossing just east of Lytton, B.C., Mile 94-59 Thompson Subdivision	C.P.R.	40	2,000.00
Two flashing light signals (2) and bell	Highway No. 7 at Laprairie, P.Q., Mileage 13-08 Massena Subdivision	C.N.R.	40	1,800.00
Two flashing light signals (2) and bell	Hale Street, Twp. London, Ontario, Mileage 75-35 Dundas Subdivision	C.N.R.	40	1,920.00
Two flashing light signals (2) and bell in lieu of wig wag signals	Crossing at Dalhousie Mills Station, P.Q., Mile 41-66 Winchester Subdivision	C.P.R.	40	170.00
Two flashing light signals (2) and bell	Crossing at New Denmark Station, N.B., Mile 64-34 Grand Falls Subdivision	C.N.R.	40	1,560.00
Two flashing light signals (2) and bell	Highway No. 19 in Lots 12 and 13, Concession 1, Bayham Township, Ont., Mile 32-67 Port Burwell Subdivision.	C.N.R.	40	1,800.00
Two flashing light signals (2) and bell	Highway No. 19 in Lot 21, Concession 8, Bayham Township, Ontario, Mile 22-6 Port Burwell Subdivision	C.P.R.	40	1,700.00
Two flashing light signals (2) and bell	Metcalfe Road, Billings Bridge, Ontario, Mile 1-29 Sussex Street Subdivision	C.P.R.	40	1,960.00
Two flashing light signals (2) and bell	Church Avenue (formerly Milford Ave.) Fairville, N.B.	C.P.R.	40	1,260.00
Two flashing light signals (2) and bell	London Road, Twp. Sarnia, Ontario, Mile 68-8 Forrest St.	C.N.R.	40	1,200.00
Two flashing lights and short arm gates, gate arm lights and bells, and one "no left turn" sign.	King Street West, Kitchener, Ontario.	C.N.R.	40	3,600.00
Three flashing light signals and two bells	Clifton Hill Road, Niagara Falls, Ontario, Victoria Park Sub., Niagara Branch (M.C.R.)	N.Y.C.	40	468.00
Two flashing light signals (2) and bell	St. Helene Street, Upton, P.Q.	C.N.R.	40	1,400.00
Two flashing light signals (2) and bell	Montreal-Sherbrooke Highway, Abbotsford Station, Quebec, Mile 11-5 St. Guillaume Subdivision	C.P.R.	40	2,640.00
Two flashing light signals (2) and bell	St. Laurent Street (Gibson's Crossing) West of Hadlow Station, Quebec	C.N.R.	40	1,840.00
Two flashing light signals (2) and bell	Crossing Mileage 84-0 Thessalon St., Twp. Thessalon, Dist. of Algoma, Ont.	C.P.R.	40	2,160.00
Improve sight lines	Crossing County Road No. 1, County of Hastings, Ontario, Mile Campbellford Subdivision	C.N.R.	40	40.00
Two flashing light signals (2) and bell and short arm gates.	96th Street, Edmonton, Alta., Edmonton Terminals Subdivision.	C.N.R.	40	4,882.00

Two flashing light signals (2) and bell	Provincial Highway No. 46, Lorneville, Ont.	C.N.R.	40	1,840.00
Two flashing light signals (2) and bell	Crossing 1.29 miles West of Locust Hill Station, Twp. Markham, Peterboro Subdivision	C.N.R.	40	
Additional wig wag and re-arrange track circuits	Reid St., Peterboro, Ont., Campbellford Subdivision	C.P.R.	40	1,440.00
Two flashing light signals (2) and bell	Crossing Ossogo, Ont., Prescott Subdivision	C.N.R.	40	600.00
Two flashing light signals (2) and bell	Highway No. 34, Megantic Subdivision, Que.	C.P.R.	40	2,820.00
Two flashing light signals (2) and bell	St. Charles Barronee Street, Joliette, Quebec	C.P.R.	40	2,420.00
Two flashing light signals (2) and bell	Fragar St., Welland, Ontario	C.N.R.	40	1,540.00
Two flashing light signals (2) and bell	Main St., Town Bedford, Stanbridge Subdivision, Que.	C.N.R.	40	1,600.00
Two flashing light signals (2) and bell	Montague Row (Water St.), Digby, N.S.	C.P.R.	40	2,040.00
Improvement to view	Crossing between Con. 2 and 3, Twp. Gloucester, Alexandria Subdivision, Ontario	D.A.R.	40	2,060.00
Two flashing light signals (2) and bell	St. Francois Street, La Tuque, Quebec, La Tuque Subdivision	C.N.R.	40	40.00
Three flashing light signals (3) and bell	St. Nazaire Street, Plessisville, Que., Danville Subdivision	C.N.R.	40	1,920.00
Two short arm automatic gates and two flashing lights and bell	Highway No. 1 Crossing C.N.R. Pleasant Point Sub. and C.P.R. Main Line Portage La Prairie, Man.	C.N.R.	40	2,160.00
Two flashing light signals (2) and bell	Highway No. 51, Glendyne Subdivision, Quebec, Mileage 58-25	C.N.R. & C.P.R.	40	6,000.00
Improvement to view	Highway No. 51, Glendyne Subdivision, Quebec, Mileage 57-44	C.N.R.	40	1,440.00
Two flashing light signals (2) and bell	Base Line Road, Cyrville, Ont., Alexandria Subdivision	C.N.R.	40	1,440.00
Two flashing light signals (2) and bell	Highway No. 7, Onemee, Ont., Campbellford Subdivision	C.N.R.	40	54.00
Two flashing light signals (2) and bell	Highway No. 32, Scoudouc, N.B., Shediac Subdivision	C.N.R.	40	1,200.00
Two flashing light signals (2) and bell	Crossing, River Glade, N.B., Sussex Subdivision	C.N.R.	40	1,560.00
Two flashing light signals (2) and bell	Crossing, College Bridge, N.B., M. 103-8 Springhill Subdivision	C.N.R.	40	1,520.00
Two flashing light signals (2) and bell	Highway No. 10, Darrah's Crossing, Chipman, N.B.	C.N.R.	40	1,640.00
Two flashing light signals (2) and bell	Highway No. 16, Baie Verte, N.B., Tormentine Subdivision	C.N.R.	40	1,440.00
Three flashing light signals (3) and bell	Provincial Highway No. 1, W. Paradis Station, N.S.	C.N.R.	40	1,520.00
Three flashing light signals (3) and bell	Eramosa Road, Guelph, Ont., Goderich Subdivision	D.A.R.	40	1,770.00
Alterations to track circuits	Highway No. 39, First Crossing West Alexandria Station, Ont.	C.P.R.	40	1,520.00
Improve sight lines	Crossing, Township Albion, Ont., M. 50-9 Milton Subdivision	C.N.R.	40	360.00
Improve sight lines	Route No. 41, Riviere Bleue, Que., M. 45-20 Glendyne Subdivision	C.P.R.	40	340.00
Two flashing light signals (2) and bell	Highway No. 5, Warwick, Que., M. 63-14 Danville Subdivision	C.N.R.	40	1,680.00
Additional wig wag and move existing wig wag and bell	Second Crossing East of Baden, Ontario, Brampton Subdivision	C.N.R.	40	1,800.00
Two flashing light signals (2) and bell	Highway No. 2 at Memramcook, N.B., Springhill Subdivision	C.N.R.	40	1,520.00
Two short arm gates, two bells and two flashing light signals	Wentworth St. S., Hamilton, Ontario	1,380.00	40	
Subway	Dartmouth-Bedford Highway, Burnside, N.S., Dartmouth Subdivision	T.H.B. & C.N.R.	0	5,000.00
Highway diversion and improving sight lines	Road Allowance between Sec. 15 & 16, Twp. 45, Rge. 21, Sask.	C.N.R.	40	63,600.00
Two flashing light signals (2) and bell	Crossing to be constructed 30' W. Mileage 3-415 Shushwap Sub., B.C.	C.P.R.	40	240.00
Two flashing light signals (2) and bell	Crossing Stewiacke, N.S., Bedford Subd., M. 46-75	C.P.R.	40	3,450.00
Two flashing light signals (2) and bell	Emallife St., Amherst, N.S., Mile 77-16 Springhill Subdivision	C.N.R.	40	1,560.00
Two flashing light signals (2) and bell	Ballantyne Crossing, Woodburn, N.S., M. 49-94 Mulgrave Subdivision	C.N.R.	40	2,000.00
Two flashing light signals (2) and bell	Norfolk St., (Highway 24) Town of Simcoe, Ont.	C.N.R.	40	1,400.00
Two flashing light signals (2) and bell in lieu of bell with fixed lights	Joyce's Crossing at Stewiacke, N.S., M. 47-80 Bedford Subdivision	C.N.R.	40	1,920.00
				1,380.00

CONTRIBUTION FROM RAILWAY GRADE CROSSING FUND (cont.)

Protection	Location	Railway	Per Cent	Con- tributions
Changes to ringing circuits of bell	Ontario St., Burlington, Ont., M. 6-41 Beach Subdivision	C.N.R.	40	1,200-00
Two flashing light signals (2) and bell	Sand Cove Road, West St. John, N.B.	C.P.R.	40	2,580-00
Two flashing light signals (2) and bell	Highway No. 26, just north of Midhurst Station, Ontario, Mileage 67-24 MacTier Subdivision	C.P.R.	40	1,400-00
Two flashing light signals (2) and bell in lieu of bell	Highway No. 22, Twp. Melbourne, Que., M. 1-95 St. Hyacinthe Sd.	C.N.R.	40	960-00
Two flashing light signals (2) and bell	Second crossing east of Baden, Ont. M. 72-39 Brampton Subd.	C.N.R.	40	1,880-00
Two flashing light signals (2) and bell	Crossing at M. 18-04 Chalk River Subd. near Carleton Place, Ontario	C.P.R.	40	2,400-00
Two flashing light signals (2) and bell	Crossing north of Brown Point Station, N.S., M. 66-85 Oxford Sd.	C.N.R.	40	2,200-00
Changes in circuits of bells & wig wags	St. Joseph Blvd. Parish St. Joseph, first crossing west of Drummondville Station, Mile 98-5 Drummondville Subd. Que.	C.N.R.	40	920-00
Change track circuits of double bell and wig wag	Ottawa Avenue, South River, Ontario	C.N.R.	40	920-00
Two flashing light signals (2) and bell	St. Jean Baptiste Street, Jonquiere, Que.	C.N.R.	40	1,260-00

CONSTRUCT AND RECONSTRUCT BRIDGES AND SUBWAYS

Construct overhead bridge over Canadian Pacific Railway on Highway No. 3 at mileage 105 McLeod Subdivision, Alberta.

Reconstruct Canadian Pacific Railway bridge over Tulameen River at mileage 77·8, Princeton Subdivision, British Columbia.

Reconstruct Canadian Pacific Railway bridge over Tulameen River at mileage 71·7, Princeton Subdivision, British Columbia.

Construct bridge carrying Highway 17 over Canadian Pacific Railway in Townsite of Terrace Bay, District of Thunder Bay, Ontario, mileage 109·69, Heron Bay Subdivision.

Reconstruct bridge at mileage 17·1 Kaslo Subdivision, Canadian Pacific Railway, British Columbia.

Reconstruct bridge over road between Concessions 6 and 7, Township of Esquesing, Ontario, mileage 31·7, Brampton Subdivision, Canadian National Railways.

Reconstruct bridge over White River, Quebec, at mileage 25·2, Aston Subdivision, Canadian National Railways.

Reconstruct bridge over Laronde River, Ontario, mileage 74·7, Alderdale Subdivision, Canadian National Railways.

Reconstruct bridge at Hemlock Avenue and Rue St. Marc over Canadian Pacific Railway, mileage 21·3 St. Maurice Valley Subdivision, Shawinigan Falls, Quebec.

Reconstruct Canadian National Railways bridge over Bayfield Creek, Ontario, mileage 44·3, Exeter Subdivision.

Reconstruct Canadian National Railway bridge over Western Irrigation District Canal, Calgary, Alberta, mile 0·9 from Barlow Junction.

Construct overhead foot bridge over Canadian National Railways between Barrington Street and H.M.C. Dockyard, Halifax, Nova Scotia.

Reconstruct Canadian National Railways bridge over Kenogami River at mileage 101·0 Caramat Subdivision, Ontario.

Reconstruct Esquimalt and Nanaimo Railway bridge at mileage 18·8 Port Alberni Subdivision, British Columbia.

Reconstruct Canadian National Railways bridge at mileage 9·03 Durham Subdivision, Ontario.

Construct subway under Canadian National Railways at road allowance in Lot 16, between Concessions 3 and 4, Township of Whitchurch, County of York, Ontario.

Reconstruct bridge over Missheongo Creek at mileage 15·6 Oba Subdivision, Canadian National Railways, Ontario.

Construct subway under Canadian Pacific Railway at Cockburn Street, Drummondville, Quebec.

Reconstruct bridge over Canadian National Railways at Eglinton Avenue, Forest Hill, Ontario.

Reconstruct Canadian National Railways bridge at mileage 6·4 Fraser Subdivision, British Columbia.

Reconstruct Canadian National Railways bridge at mileage 107·2 Okanagan Subdivision, British Columbia.

Reconstruct Canadian National Railways bridge over Ogama Canal, British Columbia, mileage 98·8 Okanagan Subdivision.

Construct bridge over Canadian National Railways on Highway No. 10, Rimouski, Quebec.

Reconstruct subway under Canadian National Railways at Avenue A, R.M. of Cory, Saskatchewan.

Construct subway under the Quebec Central Railway on Highway No. 2, in Municipality of Sacre-Coeur de Jesus, County of Beauce, Quebec.

Construct Algoma Central and Hudson Bay Railway bridge at mileage 283.3, in Township of Lowther, District of Cochrane, Ontario.

Reconstruct foot bridge over Canadian Pacific Railway, at mileage 0.72 Brooks Subdivision, Medicine Hat, Alberta.

Reconstruct bridge over farm road crossing, at mileage 97.6 Okanagan Subdivision, Canadian National Railways, British Columbia.

Reconstruct bridge over Nicola River, mileage 18.0 Merritt Subdivision, Canadian Pacific Railway, British Columbia.

Reconstruct subway through the waterfront viaduct and under the Canadian National Railways, north of Keating Street, Toronto, Ontario.

Reconstruct bridge over Elk River, mileage 52.6, Cranbrook Subdivision, Canadian Pacific Railway, British Columbia.

Reconstruct Canadian Pacific Railway bridge No. 3.7 Wingham Subdivision, Ontario.

Construct sidewalk on Canadian Pacific Railway bridge No. 62.02 Trois Rivières Subdivision across Rivière du Loup, at Louiseville, Quebec.

Reconstruct Canadian National Railways bridge No. 36.5 Southampton Subdivision, Ontario.

Reconstruct Canadian National Railways bridge at mileage 90.9 Ashcroft Subdivision, British Columbia.

Reconstruct retaining wall of St. Clair Avenue subway, Toronto, under Canadian National and Canadian Pacific Railway.

Construct temporary trestle over Thompson River, British Columbia, mileage 28.8, Ashcroft Subdivision, Canadian Pacific Railway.

Reconstruct Canadian Pacific Railway bridge, No. 10.4, Asquith Subdivision, Saskatchewan.

Reconstruct Canadian Pacific Railway bridge No. 38.5 Coquihalla Subdivision, British Columbia.

Reconstruct Canadian National Railways bridge over Maitland River, mileage 29.85 Kincardine Subdivision, Ontario.

Reconstruct Canadian National Railway, Bathurst subway, mileage 44.2, Bathurst Subdivision, New Brunswick.

Construct subway under Canadian National Railways at Bedford, Nova Scotia.

Reconstruct Canadian Pacific Railway bridge at mileage 0.8 Mission Subdivision, British Columbia.

Reconstruct Algoma Central and Hudson Bay Railway bridge over Aqwa River at mileage 112.1, Ontario.

APPROVAL OF OPERATION OVER AND UNDER BRIDGES

Canadian National Railways bridges on Tete Jaune Subdivision, British Columbia, mileage 2.1, 8.2, 10.1, 10.7, 11.8, 12.8 and 17.2.

Canadian National Railways bridge over Hunter's Creek, British Columbia, mileage 46.9 Yale Subdivision.

Canadian National Railways foot bridge at Emerald Street, Hamilton, Ontario.

Canadian National Railways bridge at mileage 119.3 Oyen Subdivision, Alberta.

Quebec Central Railway bridge over South Blueberry River, mileage 36.0 Megantic Subdivision, Quebec.

Canadian Pacific Railway bridges at mileage 17·2 and 19·2 Sutherland Subdivision, Saskatchewan.

Canadian Pacific Railway bridge at mileage 48·4 Princeton subdivision, British Columbia.

Canadian Pacific Railway to operate over subway on Clifton Road Extension, Toronto, Ontario.

Canadian National Railways bridge over Coldwater Creek, mileage 88·9, Wabamum Subdivision, Alberta.

Canadian Pacific Railway bridge over East Fork Sawmill Creek, mileage 96·3 Carmi Subdivision, British Columbia.

Canadian Pacific Railway bridge over Head Race at Shawinigan Falls, mileage 19·9 St. Maurice Valley Subdivision, Quebec.

Canadian National Railways swing bridge over Trent Canal, mileage 67·1, Bala Subdivision, Ontario.

Canadian National Railways swing bridge over Trent Canal, mileage 89·9 Bala Subdivision, Ontario.

Canadian National Railways swing bridge over Trent Waterways System, mileage 88·4 Newmarket Subdivision, Ontario.

Canadian National Railways swing bridge over Muskoka Lake Waterways System, at mileage 113·2 Bala Subdivision, Ontario.

Canadian Pacific Railways double ten-foot reinforced concrete culvert at bridge No. 18·2 Neudorf Subdivision, Saskatchewan.

Canadian Pacific Railway bridge over Assiniboine River, mileage 84·6 Bredenbury Subdivision, Manitoba.

Canadian National Railways bridge over highway between Townships of Minto and Arthur, mileage 9·03 Durham Subdivision, Ontario.

Canadian National Railways swing bridge over Soulanges Canal at mileage 54·85 Alexandria Subdivision, Ontario.

Canadian Pacific Railway fill and culvert at mileage 17·1 Kaslo Subdivision, British Columbia.

Canadian Pacific Railway bridge at mileage 36·9 Brazeau Subdivision, Alberta.

Canadian National Railways bridge across Bone Creek, British Columbia, mile 121·2 Albreda Subdivision.

Canadian National Railways bridge over Little Rice River, Manitoba, mileage 57·7, Erwood Subdivision.

Canadian National Railways bridge over Bird Tail Creek, Manitoba, mileage 47·8 Miniota Subdivision.

Canadian National Railways bridge across Steep Rock River, Manitoba, mileage 45·0 Erwood Subdivision.

Canadian National Railways bridge at mileage 6·3 Letellier Subdivision, Manitoba.

Canadian National Railways bridge at mileage 36·8 Letellier Subdivision, Manitoba.

Canadian National Railways bridge at mileage 63·3 Erwood Subdivision, Manitoba.

Canadian National Railways bridge over Kenogami River, mileage 101·0 Caramat Subdivision.

Canadian National Railways bridge at mileage 31·9 Preeceville Subdivision, Saskatchewan.

Canadian National Railways bridge across Solomon Creek, mileage 67·4 Brule Subdivision, Alberta.

Canadian National Railways bridges on Albreda Subdivision, British Columbia, at mileages 10·6, 13·8, 14·1, 32·8, 44·2, 45·3, 51·8, 74·2, 90·2, 93·0, 93·7, 96·1, 96·3, 96·4, 97·6, 97·7, 97·8, 98·0, 98·1, 102·9, 105·6, 110·7, 123·5, 129·1, 130·4.

Canadian National Railways bridges on Clearwater Subdivision, British Columbia, at mileages 8·6, 10·4, 24·8, 28·7, 29·7, 33·6, 51·7, 59·1, 59·5, 91·2, 107·1, 82·3, 82·3 (Passing Track) 82·6, 82·6 (Passing Track) and 128·7.

Canadian National Railways bridges on Preeceville Subdivision, Saskatchewan, at mileages 38·1, 39·8, 42·5, 43·2, 44·1, 48·9 and 56·3.

Canadian National Railways bridges on Ashcroft Subdivision at mileages 0·5, 10·6, 31·9, 51·8, 55·8, 75·4, 80·9 and 90·3, British Columbia.

Canadian National Railways bridge No. 8·3 Ashcroft Subdivision, British Columbia.

Canadian National Railways timber trestle across the Thompson River, at mileage 28·8 Ashcroft Subdivision, British Columbia.

Canadian National Railways bridge over St. Lawrence River near Soulanges, Quebec.

Canadian National Railways bridge over Laronde River at mileage 74·7 Alderdale Subdivision, Ontario.

Canadian National Railways bridges at mileages 20·8, 24·5, 30·3, 36·8, 52·3, 53·9, 54·4, 55·0, 56·7, 60·1, 63·4, 72·1, 75·0, 77·3, 78·0, 81·0, 89·5, 90·9, 92·5, 94·5, 104·9, 114·4, 119·5, 123·2, 133·5, 149·9, and 155·8, Graham Subdivision, Ontario.

Canadian National Railways timber trestle across White Mud River, Manitoba, mileage 93·0 Gladstone Subdivision.

Canadian National Railways bridge at mileage 73·6 Yale Subdivision, British Columbia.

Canadian National Railways bridge at mileage 73·9, Yale Subdivision, British Columbia.

Canadian National Railways bridge across Maitland River, mileage 29·85 Kincardine Subdivision, Ontario.

Canadian National Railways bridge at mileage 99·5 Ashcroft Subdivision, British Columbia.

Canadian National Railways bridge No. 6 over Welland Ship Canal, mileage 8·5 Grimsby Subdivision, Ontario.

Canadian National Railways bridge at mileage 84·0 Avonlea Subdivision, Saskatchewan.

HIGHWAY DIVERSIONS

Diversion of Highway No. 3 from southeast quarter of Section 10, Township 9, Range 26, W 4 M near MacLeod, Alberta, to a point in the Seigan Indian Reserve, No. 147.

Diversion of Levis-Jackman Highway in Municipality of St. Francois de la Beauce, Quebec, closing one crossing.

Diversion of North and South road allowances through southeast quarter of Section 27, Township 39, Range 5, W 5 M, near Leslieville, Alberta.

Diversion of north and south road allowance between Sections 19 and 20, Township 7, Range 27, W 2 M Saskatchewan closing crossing at mileage 9·4 Assiniboia Subdivision, Canadian Pacific Railway.

Diversion of highway between Sections 35 and 36, Township 31, Range 24 W 3 M, Saskatchewan, at mileage 68·4 Dodsland Subdivision, Canadian National Railways.

Diversion of highway west of Revelstoke, British Columbia to cross Canadian Pacific Railway at mileage 3·415 Shuswap Subdivision and close existing crossing just west.

Diversion of Jasper-Edmonton Highway in N. W. $\frac{1}{4}$ Section 9, Township 4·7, Range 1, W 6 M Alberta closing crossing at mileage 94·4 Brule Subdivision, Canadian National Railways.

RAILWAY CONNECTIONS

Canadian National Railways and Canadian Pacific Railway at Nevis, Alberta.

INTERLOCKING PLANTS AND CHANGES TO INTERLOCKING PLANTS AND SIGNALS

Changes to interlocking plant at Canadian National and Canadian Pacific Railway crossing at Findlay, Manitoba.

Changes to interlocking plant at Canadian Pacific Junction with Canadian National Railways, at Leaside, Ontario, mileage 103·6, Oshawa Subdivision.

Changes to interlocking plant at crossing of Canadian National Railways and Canadian Pacific Railway, near Hope, British Columbia, mileage 53·6 Coquihalla Subdivision.

Changes to interlocking plant at crossing of Canadian Pacific Railway and Canadian National Railways at Hartney, Manitoba, mileage 54·29 Hartney Subdivision.

Changes to interlocking plant at crossing of Canadian National Railways and Canadian Pacific Railway near Perdue, Saskatchewan, mileage 60·8 Rosetown Subdivision.

Changes to interlocking plant at crossing of Canadian National Railways and Canadian Pacific Railway near Rosetown, Saskatchewan, mileage 41·1 Kerrobert Subdivision.

Changes to interlocking plant at crossing of Canadian National Railways and Canadian Pacific Railway near Reford, Saskatchewan, mileage 36·6 Reford Subdivision.

Changes to interlocking plant at crossing of Canadian National Railways and Canadian Pacific Railway near Wadena, Saskatchewan, mileage 28·9, Tisdale Subdivision.

Changes to interlocking plant at crossing of Canadian National Railways and Canadian Pacific Railway near Tisdale, Saskatchewan, mileage 95·4, Tisdale Subdivision.

Changes to interlocking plant at crossing of Canadian National Railways and Canadian Pacific Railway near Watson, Saskatchewan, mileage 29·0, Melfort Subdivision.

Changes to British Columbia Electric Railway interlocking plant at crossing of Esquimalt and Nanaimo Railway at Victoria, British Columbia.

Changes to interlocking plant at crossing of Canadian National Railways and Canadian Pacific Railway near Carman, Manitoba, mileage 13·2 Carman Subdivision.

Changes to interlocking plant at crossing of Canadian National Railways and Canadian Pacific Railway near Vegreville, Alberta, mileage 0·5, Vegreville Subdivision.

Remove diamond at crossing of City of Edmonton Electric Railway and Edmonton Yukon and Pacific Railway at junction of Edward Street and Stephen Avenue, Edmonton, Alberta.

Remove diamond at crossing of City of Edmonton Electric Railway and Edmonton, Yukon and Pacific Railway at Edward Street, between Stony Plain Road and MacKenzie Avenue, Edmonton, Alberta.

Changes to interlocking plant at crossing of Canadian National Railways and Canadian Pacific Railway near Russell, Manitoba, mileage 11.6 Russell Subdivision.

Remove diamond crossing and interlocker at crossing of New York Central Railway and Niagara, St. Catharines and Toronto Railway at Erie Avenue, Niagara Falls, Ontario.

Remove diamond crossing and interlocker at crossing of New York Central Railway and Niagara, St. Catharines and Toronto Railway on Victoria Avenue, Niagara Falls, Ontario.

Changes to interlocker at Napierville Junction Railway and Canadian National Railway crossing at Lacolle, Quebec.

Remove diamond crossing of Fort William Street Railway and Canadian National Railways and intersection of Frederica and James Streets, Fort William, Ontario.

Changes in automatic signals and cross-over from left to right running on Canadian Pacific Railway at James Street, Fort William, Ontario.

Remove diamond crossing and interlocking at Fort William Street Railway and Canadian National Railways crossing at Queen and James Streets, Fort William, Ontario.

Interlocking plant at crossing of Canadian Pacific Railway's Rosetown and Kerrobert Subdivision, Saskatchewan.

Interlocking plant at crossing of Canadian Pacific Railway's Rosetown Branch and the Canadian National Railways' Rosetown Branch, Saskatchewan.

Remove diamond crossing and interlocking at Canadian National Railways and Port Arthur Electric Railway crossing at Fort William Road, City of Port Arthur, Ontario.

Changes to interlocker at crossing of Grand River Railway and Canadian National Railways in Kitchener, Ontario, mile 12.8 Waterloo Subdivision.

Changes to Canadian National Railways interlocking plant at Longue Pointe, Quebec.

Changes to interlocking plant at crossing of Great Northern Railway and British Columbia Electric Railway at Ardley, British Columbia.

Half interlocking plant at Canadian National Railways and Canadian Pacific Railway crossing at Neebing Avenue, Fort William, Ontario.

Changes to interlocking plant at crossing of Victoria Lumber Company Railway and the Esquimalt and Nanaimo Railway, mileage 50.7 Victoria Subdivision, Vancouver Island, British Columbia.

Remove half interlocking plant at Avenue H, Saskatoon, at crossing of Street Railway and Canadian National Railways.

Remove signal protection at Canadian Pacific Railway and Quebec Railway, Light and Power Company's tracks crossing at Ste. Therese Street, Cadorna, Quebec.

Changes to interlocking plant at Canadian Pacific Railway and Canadian National Railways crossing near Balcarres, Saskatchewan.

Changes to interlocking plant at Canadian Pacific Railway and Canadian National Railways crossing near Lyalta, Alberta.

Changes to interlocking plant at Canadian National Railways and Canadian Pacific Railway crossing near Birds Hill, Manitoba.

Changes to interlocking plant at Canadian National Railways and Canadian Pacific Railway crossing near Knox, Manitoba.

Changes to interlocking plant at crossing of Canadian Pacific Railway and Canadian National Railways Lewvan Subdivision at mileage 115·27 near Regina, Saskatchewan.

Changes to interlocking plant at crossing of Canadian National Railways and Canadian Pacific Railway near Nokomis, Saskatchewan.

Changes to interlocking plant at crossing of Canadian Pacific Railway and Canadian National Railways at mileage 50·36 Stettler Subdivision, near Stettler, Alberta.

Changes to interlocking plant at crossing of Canadian Pacific Railway and Canadian National Railways, mileage 24·81 Yorkton Subdivision, near Yorkton, Saskatchewan.

Changes to interlocking plant at crossing of Canadian Pacific Railway and Canadian National Railways, mileage 29·04 Conquest Subdivision at Conquest, Saskatchewan.

Changes to interlocking plant at crossing of Canadian Pacific Railway and Canadian National Railways, mileage 0·12 Lampman Subdivision, near Maryfield, Saskatchewan.

Changes to interlocking plant at crossing of Canadian Pacific Railway and Canadian National Railways at Forward, Saskatchewan.

Changes to interlocking plant at crossing of Canadian National Railways and Canadian Pacific Railway at mileage 23·9 Bienfait Subdivision, Saskatchewan.

Changes to interlocking plant at crossing of Canadian Pacific Railway and Canadian National Railways at St. James Junction, near Winnipeg, Manitoba.

Changes to interlocking plant at crossing of Canadian Pacific Railway and Canadian National Railways, mile 19·34, Northgate Subdivision, near Frobisher, Saskatchewan.

Remove interlocking plant and diamond at crossing of Quebec Light and Power Company's Railway and Canadian Pacific Railway on Crown Street, Quebec.

Changes to interlocking plant at crossing of Canadian National Railways and Canadian Pacific Railway, mile 46·64 Dodsland Subdivision, near Dodsland, Saskatchewan.

Changes to interlocking plant at crossing of Canadian National Railways and Canadian Pacific Railway, mileage 54·29 Hartney Subdivision, at Hartney, Manitoba.

Changes to interlocking plant at crossing of Canadian National Railways and Canadian Pacific Railway near Chandler, Saskatchewan.

Changes to interlocking plant at crossing of Canadian Pacific Railway and Canadian National Railways, mile 7·83 Oak Point Branch, at Woodman, Manitoba.

Changes to interlocking plant at crossing of Canadian Pacific Railway and Canadian National Railways, mileage 37·0 Lewvan Subdivision, near Griffin, Saskatchewan.

Changes to interlocking plant at crossing of Canadian Pacific Railway and Canadian National Railways, mileage 14·29 Glenavon Subdivision, near Peebles, Saskatchewan.

Changes to interlocking plant at crossing of Canadian Pacific Railway and Canadian National Railways, mileage 0·22 Miami Subdivision, near Morris, Manitoba.

Changes to interlocking plant at crossing of Canadian Pacific Railway and Canadian National Railways, mileage 47·75 Camrose Subdivision, near Camrose, Alberta.

Changes to interlocking plant at crossing of Canadian Pacific Railway and Canadian National Railways, mileage 88·12 Yale Subdivision, near Matsqui, British Columbia.

Changes to interlocking plant at crossing of Canadian Pacific Railway and Great Northern Railway at Burrard Inlet, British Columbia.

Changes to interlocking plant at crossing of Canadian Pacific Railway and Canadian National Railways at Galt, Ontario.

Changes to interlocking plant at crossing of Canadian Pacific Railway and Canadian National Railways, mileage 5·72 Three Hills Subdivision, Alix, Alberta.

Changes to interlocking plant at crossing of Canadian National Railways and British Columbia Electric Railway near Chilliwack, British Columbia.

Changes to interlocking plant at crossing of Canadian National Railway and Canadian Pacific Railways, mileage 119·18 Keewatin Subdivision, Manitoba.

Changes to interlocking plant at Canadian Pacific Railway, La Riviere Subdivision, at mileage 1·09 crossing its "J" Yard lead, Winnipeg, Manitoba.

Changes to interlocking plant at Canadian National Railways and Canadian Pacific Railway crossing near Bienfait, Saskatchewan.

Changes to interlocking plant at crossing of Canadian National Railways and Chesapeake and Ohio Railway at Chatham Junction, Ontario.

Changes to interlocking plant at crossing of Lake Erie and Northern Railway with the Canadian National Railways and Toronto, Hamilton and Buffalo Railway at Brantford, Ontario.

Changes to interlocking plant at crossing of Canadian National Railways Oak Point Subdivision and Canadian Pacific Railway's Airport Spur at St. James, Manitoba.

Changes to interlocking plant at crossing of Canadian Pacific Railway and Canadian National Railways at Fergus, Ontario.

Changes to interlocking plant at crossing of Lake Erie and Northern Railway and Canadian National Railways at Galt, Ontario.

Changes to interlocking plant at Canadian Pacific Railway and Canadian National Railways crossing near Neely, Saskatchewan.

Changes to interlocking plant at Canadian Pacific Railway and Canadian National Railways near Alix, Alberta.

Changes to interlocking plant at Lake Erie and Northern Railway crossing Canadian National Railways Burford Subdivision, at Brantford, Ontario.

Changes to interlocking plant at Canadian Pacific Railway Pleasant Hills Branch crossing Canadian National Railways near Oban, Saskatchewan.

Changes to interlocking plant at crossing of Canadian Pacific Railway Calgary to Edmonton Branch and Canadian National Railways near South Edmonton, Alberta.

Changes to interlocking plant at crossing of Canadian National Railways Qu'Appelle Subdivision and Canadian Pacific Railway Bulyea Branch near Regina, Saskatchewan.

Changes to interlocking plant at crossing of Canadian National Railways Tonkin Subdivision and Canadian Pacific Railway near Yorkton, Saskatchewan.

Changes to interlocking plant at crossing of Canadian National Railways and Lake Erie and Northern Railway at mileage 44·3 near Simcoe, Ontario.

OPERATION THROUGH INTERLOCKING PLANTS

Canadian National Railways and Canadian Pacific Railway crossing at Dodsland, Saskatchewan.

Canadian Pacific Railway crossover at James Street, Fort William, Ontario.

Canadian National Railways and New York Central Railroad at Hawthorne, Ontario.

Canadian Pacific Railway and Canadian National Railways near Vegreville, Alberta.

Canadian National Railways and Canadian Pacific Railway interlocking, near Lambton Park, Alberta.

Canadian Pacific Railway and Canadian National Railways interlocking near Rosetown, Saskatchewan.

Canadian Pacific Railway and Canadian National Railways interlocking at Emerson, Manitoba.

Canadian Pacific Railway and Canadian National Railways interlocking at Perdue, Saskatchewan.

Canadian Pacific Railway and Canadian National Railways interlocking near Reford, Saskatchewan.

Canadian National Railways and Canadian Pacific Railway interlocking at Morris, Manitoba.

Canadian Pacific Railway authorized to operate its trains through the junction with the Canadian National Railways at Kelowna, British Columbia.

Canadian National Railways and Canadian Pacific Railway interlocking, at mileage 4·84 Govel Subdivision, Saskatchewan.

Canadian National Railways interlocking at crossing of their Campbellford and Maynooth Subdivisions, at Anson, Ontario.

Half interlocking plant at Canadian National Railways and Canadian Pacific Railway crossing at Neebing Avenue, Fort William, Ontario.

Interlocking at crossing of Canadian Pacific Railway and Canadian National Railways near Watson, Saskatchewan.

Canadian Pacific Railway and Canadian National Railways crossing at Carlyle, Saskatchewan.

Canadian National Railways and Canadian Pacific Railway crossing at Woodstock, Ontario.

Canadian National Railways and Quebec Central Railway at Carrier, Quebec.

Canadian National Railways and New York Central Railroad crossing at Cornwall Junction, Ontario.

Canadian Pacific Railway and Canadian National Railways crossing near Russell, Manitoba.

Canadian Pacific Railway and Canadian National Railways crossing near Carman, Manitoba.

Canadian Pacific Railway and Canadian National Railways crossing at Alix, Alberta.

Canadian Pacific Railway and Canadian National Railways crossing, Victoria Beach Subdivision, Manitoba.

Canadian Pacific Railway, La Riviere Subdivision, at mileage 1·09 crossing its "J" Yard Lead, Winnipeg, Manitoba.

Canadian Pacific Railway and Canadian National Railways crossing near Tisdale, Saskatchewan.

Canadian National Railways and Canadian Pacific Railway crossing near Wadena, Saskatchewan.

Canadian National Railways and Canadian Pacific Railway junction at Nevis, Alberta.

Canadian National Railways and Canadian Pacific Railway junction at Alix, Alberta.

Canadian National Railways and Canadian Pacific Railway junction near Red Deer Junction, Alberta.

Canadian National Railways and Northern Alberta Railways junction at Morinville, Alberta.

Victoria Lumber Company Railway and Esquimalt and Nanaimo Railway crossing at mileage 50.7 Victoria Subdivision, Vancouver Island, British Columbia.

Canadian National Railways Harte Subdivision crossing Canadian Pacific Railway at West Winnipeg, Manitoba.

Canadian Pacific Railway and Canadian National Railways crossing at West Tower, Portage La Prairie, Manitoba.

Canadian National Railways crossing Lake Erie and Northern Railway crossing at Brantford, Ontario.

Canadian Pacific Railway crossing Neepawa Subdivision of Canadian National Railways at Neepawa, Manitoba.

Canadian National Railways crossing Canadian Pacific Railway Airport Spur at St. James, Manitoba.

Canadian Pacific Railway and Canadian National Railway, Elora Subdivision, crossing at Fergus, Ontario.

FLASHING LIGHT SIGNALS AND BELLS, ALSO ELECTRIC GATES APPROVED WITHOUT CONTRIBUTION FROM THE RAILWAY GRADE CROSSING FUND

Two flashing light signals and bell in lieu of bell and wigwag at Canadian National Railways crossing highway at Cook's Brook, New Brunswick.

Two flashing light signals and bell in lieu of bell and wigwag at Cremazie Road, Montreal, Quebec.

Two flashing light signals and bell at crossing of dual highway just east of Sarnia, Ontario, in Lot 17 Concession 7, Sarnia Township.

Two flashing light signals and bell to replace manually operated gates and watchman at Esquimalt Road crossing Esquimalt and Nanaimo Railway, Victoria, British Columbia.

Two flashing light signals and bell at St. Leon Street, Town of St. Joseph, County of Drummond, Quebec.

Two flashing light signals and bell at private road of the Department of National Defence at Bouchard, Quebec, crossing Canadian Pacific Railway.

Two flashing light signals and bell at highway crossing Kettle Valley Railway, mileage 70.25 Princeton Subdivision, British Columbia.

Two flashing light signals and bell at crossing of Canadian Pacific Railway and Main Street and two flashing light signals and bell on Raynes Avenue, in Fairville, New Brunswick.

Two manually controlled short arm electric gates at Canadian Pacific Railway crossing Beaubien Street, Montreal, Quebec.

Two flashing light signals and bell in lieu of existing manually controlled gates at Canadian National Railways Longue Pointe Subdivision, crossing Bennett Avenue at Maisonneuve, Montreal, Quebec.

Two flashing light signals and bell in lieu of existing manually controlled gates at Canadian National Railways Longue Pointe Subdivision, crossing Dezery Street, Maisonneuve, Montreal, Quebec.

Two flashing light signals and bell in lieu of existing manually controlled gates at Canadian National Railways Longue Pointe Subdivision, crossing Cuvillier Street, Maisonneuve, Montreal, Quebec.

Two flashing light signals and bell in lieu of existing manually controlled gates at Canadian National Railways Longue Pointe Subdivision, crossing Davidson Street, Maisonneuve, Montreal, Quebec.

Two flashing light signals and bell in lieu of existing manually controlled gates at Canadian National Railways Longue Pointe Subdivision, crossing Darling Street, Maisonneuve, Montreal, Quebec.

Two flashing light signals and bell at crossing of Canadian National Railways at Main Street, Amos, Quebec.

CHANGES IN OPERATING CIRCUITS OF WIGWAGS AND FLASHING LIGHT SIGNALS

Changes in position of highway crossing signals at Canadian National Railways crossing of Oshawa Railway and King Street at Ritson Road, Oshawa, Ontario.

Changes in operating circuits of flashing light signals and bell at crossing of Canadian Pacific Railway and Montgomery Road, Township of Etobicoke, Ontario, mileage 8.3 Galt Subdivision.

Changes in operating circuits of bell and wigwag at Canadian National Railways crossing Irishtown Road, Sunny Brae, New Brunswick.

Changes in operating circuits of bell and wigwag at Canadian National Railways crossing of Highway No. 2 at Memramcook, New Brunswick.

Changes to operating circuits of bell and wigwag at Canadian National Railways crossing of highway at Folley, mileage 24.96 Springhill Subdivision, Nova Scotia.

Changes to operating circuits of flashing light signals at Canadian National Railways crossing of Highway 17, in Township of Westmeath, Ontario, mileage 84.4 Chalk River Subdivision.

Changes to operating circuits of flashing lights and bell at Canadian National Railways crossing of Briere Street, St. Jerome, Quebec.

Changes to operating circuits of bell and wigwag at British Columbia Electric Railway crossing Loughheed Highway near Horne Payne Station, British Columbia.

Changes to operating circuits of bell and wigwag at Canadian National Railways crossing highway near Winfield, British Columbia.

Changes to operating circuits of bells and wigwags at Canadian National Railways crossing St. James Street, Montreal West, Quebec.

Changes to operating circuits of flashing light signals and bell at Canadian National Railways crossing St. Annes Highway, Montreal West, Quebec.

Changes to operating circuits of traffic light signals at crossing of Canadian National Railways and Franklin and Arthur Streets, Fort William, Ontario.

Changes to operating circuits of flashing lights and bell at first crossing east of station at Aldershot, Ontario, Canadian National Railways.

Changes to operating circuits of flashing lights and bell at Canadian National Railways and Lake Erie and Northern Railway crossing of Bruce Street, Galt, Ontario.

Changes to operating circuits of wigwag at Canadian National Railways crossing of Avenue H, Saskatoon, Saskatchewan.

Changes to operating circuits of bell and wigwag at Canadian National Railways crossing Cathedral Street, Rimouski, Quebec.

Remove automatic bell and danger sign at Canadian National Railways crossing highway at Atkinson, Nova Scotia.

Remove automatic bell and two lights at crossing of Canadian National Railways and Mountain Road, New Brunswick, mileage 8·22 Sussex Subdivision.

Changes to operating circuits of flashing lights and bell at Canadian Pacific Railway crossing highway at mileage 26·74 St. Guillaume Subdivision, Quebec.

Changes to operating circuits of bells and wigwags at Canadian National Railways crossing Memorial Ave. (May Street), Port Arthur, Ontario.

Changes to operating circuits of bell and wigwag at Cayuga Street crossing of Toronto, Hamilton and Buffalo Railway, Brantford, Ontario.

Changes to operating circuits of bell and wigwags at Lake Erie and Northern Railway crossing south of Dundurn, Ontario.

Changes to operating circuits of bell and wigwag at Lake Erie and Northern Railway at Bunker Hill Crossing, Waterford, Ontario.

Changes to operating circuits of bell and wigwag at Lake Erie and Northern Railway crossing Victoria Street, Simcoe, Ontario.

Changes to operating circuits of bell and wigwag at Lake Erie and Northern Railway crossing known as Maple Grove Crossing, Township of Oakland, Ontario.

Changes to operating circuits of bell and wigwag at Lake Erie and Northern Railway crossing Highway No. 24 at Bloomsburg, Ontario.

Changes to operating circuits of bell and wigwag at Lake Erie and Northern Railway crossing Townsend Street, Simcoe, Ontario.

SIGNAL PROTECTION AT BRIDGES

Canadian National Railways drawspan over the Burlington Canal, Hargrove Ontario.

Canadian National Railways swing bridge over Welland Ship Canal, at Thorold, Ontario.

Canadian National Railways swing bridge over Kaministiquia River, Fort William, Ontario.

Canadian National Railways swing bridge over Fraser River at New Westminster, British Columbia.

INSPECTION OF RAILWAY LINE FOR CARRIAGE OF TRAFFIC

Canadian National Railways line in the vicinity of mileage 42, Rouyn Subdivision, Quebec.

Quebec Central Railway from Station 3438 ÷ 71 to Station 3540 ÷ 40 at Thetford Mines, Quebec.

RAILWAY SHOPS

Canadian National Railways power house at Pointe St. Charles, Quebec.

Canadian National Railways steam generating plant at Nazareth Street, Montreal, Quebec.

Canadian National Railways Work Equipment Building in Pointe St. Charles Yard, Montreal, Quebec.

WATER, GAS, SEWER AND OIL PIPES UNDER AND OVER RAILWAYS

Gas pipe line under London and Port Stanley Railway, Port Stanley, Ontario.

Sewer pipe and water pipe, Carlaw Road Drain, under London and Port Stanley Railway, Port Stanley, Ontario.

Water pipe lines under Canadian National Railways at Port Edward, British Columbia.

Sewer pipe under Canadian National and Canadian Pacific Railways at John Street, Port Arthur, Ontario.

Oil pipe line of Elias Rogers Company Limited under Toronto Harbour Commissioners track on south side of Ship Channel, Toronto, Ontario.

Oil pipe line of R. G. Dibble Company Limited under Toronto Harbour Commissioners track on south side of Ship Channel, Toronto, Ontario.

Sewer pipe under Canadian National Railways Skeena Subdivision at Station 5846 ÷ 95.2, British Columbia.

Sewer pipe under Canadian Pacific Railway at Industrial Street, Chatham, Ontario.

Sewer and water pipe under the Canadian National Railways at Portland Street, Calgary, Alberta.

Sewer pipe under Canadian National Railways at Portage Avenue, Fort Frances, Ontario.

MINING TUNNELS

Under Canadian Pacific Railway at Bienfait, Saskatchewan.

Under Canadian National Railway at MacLeod River Hard Coal Company at Mercoal, Alberta.

DIVERSION OF RAILWAY LINE

Canadian National Railways in vicinity of mileage 42 Rouyn Subdivision, near Noranda, Quebec.

Canadian Pacific Railway line from mileage 75.2 to 76.0 Princeton Subdivision, British Columbia.

Canadian Pacific Railway line at mileage 4.8 Cranbrook Subdivision, British Columbia.

Canadian National Railway line between mileage 22.95 and 23.69 Ashcroft Subdivision, Savona, British Columbia.

LOCATION OF TELEPHONE LINES

Approval of location of Bell Telephone lines along and across highways in the Township of London, Ontario.

Approval of location of British Columbia Telephone Company's cable over Canadian Pacific Railway tracks at Granville Street Viaduct, Vancouver.

Approval of location of Bell Telephone Company's cable along and across highways in Townships of Oxford, Howard and Harwich, County of Kent, Ontario.

Approval of location of Bell Telephone Company's cables in Township of London, Ontario.

EXEMPTION FROM MAINTAINING FENCES AND CATTLE GUARDS

Exemption from maintaining cattle guards at highway crossings on the Canadian Pacific Railway at mileages 2.44 and 3.06 Adirondack Subdivision, Quebec.

Exemption from maintaining cattle guards at highway crossings of Canadian Pacific Railway at mileages 27.15, 27.86 and 28.73 Peterboro Subdivision, Ontario.

Exemption from maintaining cattle guards at highway crossings at mileages 5.87 and 6.83 Newport Subdivision, Quebec Central Railway, Quebec.

Exemption from maintaining fencing on Canadian Pacific Railway, Amulet Subdivision, mileages 15.16 to 15.84, 20.80 to 21.49, 31.65 to 32.26 and 38.02 to 38.61, Saskatchewan.

Exemption from maintaining fencing on Canadian Pacific Railway, Vegreville Subdivision, from mileage 9.47 to 9.97 on the east side, and from 3.93 to 4.45 and from 15.52 to 16.01 west side, and from mileage 0 to 0.58 both sides, Alberta.

Exemption from maintaining fencing on Canadian Pacific Railway on the north side between mileages 26.71 and 26.99 and 60.44 and 61.43 Alberta Central Subdivision, Alberta.

Exemption from maintaining fencing on the Canadian National Railway Kapuskasing Subdivision from mileage 35.85 to 80.8 and mileage 105.0 to 128.3 on the north side, and on the south side from 128.5 to 129.08; and on the south side from mileage 0 to 0.60 Pagwa Subdivision, Ontario.

Exemption from maintaining fencing on Wilkie Subdivision, Canadian Pacific Railway, between mileages 6.92 and 7.42 and 33.86 and 34.24 south side, and between mileages 15.57 and 16.14 north side.

Exemption from maintaining cattle guards at highway crossing, Canadian Pacific Railway at mileage 43.01 Webbwood Subdivision, Ontario.

Exemption from fencing West Side of Canadian National Railways tracks between mileages 86.5 and 87.4 and between mileage 109.4 and 110.1 Huntsville Subdivision, Ontario.

Exemption from maintaining fencing on the south side of Canadian National Railways between mileages 88.7 and 89.1 and mileages 39.7 and 40.8 Newmarket Subdivision, Ontario.

Exemption from maintaining fencing on the north side of Canadian National Railways between mileages 120.95 and 122.74 Alexandria Subdivision, Ontario.

Exemption from maintaining fencing on the south side between mileages 43.0 and 43.4 Meaford Subdivision, Canadian National Railways, and between mileages 36.5 and 37.5, and mileages 39.3 and 41.2 Meaford Subdivision, Ontario.

Exemption from maintaining cattle guards at crossings of Canadian Pacific Railway, in Township of Caledonia, Ontario, at mileages 37.98, 39.12 and 39.52 Montreal and Ottawa Subdivision.

Exemption from maintaining cattle guards at crossings of Canadian Pacific Railway, mileages 80.25 and 81.25 Thessalon Subdivision, Ontario.

Exemption from maintaining cattle guards at crossings of Canadian Pacific Railway, mileages 4.03, 4.89, 5.88, 7.38 and 31.35 St. Guillaume Subdivision, Quebec.

Exemption from maintaining fencing on Canadian Pacific Railway Minnedosa Subdivision, between mileages 78.47 and 78.6, Town of Minnedosa, Manitoba.

Exemption from maintaining fencing on the north side of Canadian Pacific Railway between mileages 131.49 and 133.10 Carberry Subdivision, Manitoba.

Exemption from maintaining fencing for a distance of 289 feet on the north side of the Canadian National Railways station at Vercheres, Quebec.

Exemption from maintaining fencing on the Canadian Pacific Railway, Russell Subdivision, on the east side between mileages 10.98 and 11.40 and on the west side between mileages 23.20 and 23.85, Manitoba.

Exemption from maintaining cattle guards at crossing of Quebec Central Railway at mileage 19.8 Levis Subdivision, Quebec.

Exemption from maintaining cattle guards at crossings of Quebec Central Railway at mileages 3.57, 4.73, 12.01, 99.76 and 112.0 Quebec Subdivision, Quebec.

Exemption from maintaining cattle guards at crossings of Quebec Central Railway, at mileages 1.16, 4.23, 4.49, 30.0, 31.42, 32.01, 32.10, 42.38, 43.68, 45.72, 48.97, 50.12, 52.33, and 54.60, Megantic Subdivision, Quebec.

Exemption from maintaining cattle guards at crossings of Canadian Pacific Railway at mileages 1·92 and 2·62 St. Guillaume Subdivision, Quebec.

Exemption from maintaining cattle guards at highway crossing Canadian Pacific Railway at mileage 2·23 Stanbridge Subdivision, Quebec.

Exemption from maintaining cattle guards at highway crossings of Quebec Central Railway at mileages 18·6, 18·66, 18·91, 20·5, 23·42, 24·30, 25·07, 28·43, 28·75 and 78·5, Chaudiere Subdivision, Quebec.

Canadian Pacific Railway fencing mileage 76·1 to 76·31 west side and 76·31 to 77·26 west side, Shogomoc Subdivision, New Brunswick.

Canadian Pacific Railway cattle guards at crossings at mileages 24·2, 30·3 and 33, Bobcaygeon Subdivision, Ontario.

Canadian Pacific Railway cattle guards at crossings in Townships of Admaston, Bagot and Blythfield, Oso and Portland, at mileages 4·2, 8·35, 14·25, 14·4, 53·5, 56·5, 57·1, 57·2, 78·9, 79·8, 80·8, 85·0, 87·7 and 89·17 Kingston Subdivision, Ontario.

Canadian Pacific Railway cattle guards at crossings at mileages 16·2, 16·9, 17·9 and 46·4 Havelock Subdivision, Ontario.

Canadian Pacific Railway cattle guards at crossings at mileages 3·0, 3·6, 5·25, 5·8, 37·7, 47·3, 88·7, 89·5, 90, 90·5, 91·1, 91·6, 92·8, 94, 95, 95·07, 95·6, 96·7, 97·3, 97·97 and 98·6 Oshawa Subdivision, Ontario.

Canadian Pacific Railway cattle guards at crossings at mileages 78·9, 83·9, 84·0, 84·4, 85·2, 86·7 and 87·3 Peterboro Subdivision, Ontario.

Canadian Pacific Railway cattle guards at mileages 13·44, 15·14, 16·44 and 16·64 Eganville Subdivision, Ontario.

Canadian Pacific Railway cattle guards in Township of Pembroke, mileage 88·29 Chalk River Subdivision.

Canadian Pacific Railway cattle guards at mileages 18·95, 20·3, 22·52, 23·0, 26·10, 26·72, 27·42, 29·04, 32·75, 33·5, 35·55, 36·35, 39·17 and 39·64 Maniwaki Subdivision, Quebec.

Canadian National Railways fencing between mileages 125·45 and 127·66 Sudbury Subdivision, Ontario.

Exemption from maintaining fencing on the Canadian Pacific Railway Furness Subdivision, on the south side between mileages 6·70 and 6·80 and on the north side between mileages 11·81 and 11·93 and between 19·10 and 19·29, Alberta.

Exemption from maintaining fencing in the Canadian Pacific Railway Leduc Subdivision, on the east side from mileages 11·55 to 11·86, 18·01 to 18·56, 27·41 to 27·61, 34·87 to 35·07, 56·71 to 57·36, 79·02 to 79·37, 84·16 to 84·67, 96·99 to 99·83 and on the west side from mileages 17·76 to 18·56, 27·41 to 27·61, 34·54 to 35·07, 56·45 to 57·10, 79·02 to 79·56, 84·16 to 84·43 and 96·79 to 99·83, Alberta.

ROUTE MAP APPROVED

Quebec, North Shore and Labrador Railway between Seven Islands and Alta Lake, Quebec.

Quebec, North Shore and Labrador Railway between Knob Lake and Ungava Bay, Quebec.

APPROVAL OF OPERATION THROUGH TUNNEL

Canadian National Railways tunnel at mileage 5·5 Yale Subdivision, British Columbia.

ABANDON OPERATION OF RAILWAY LINE

English Bay Branch of Canadian Pacific Railway from the east boundary of Cypress Street to the Western terminus of the branch of Yew Street, Vancouver, and abandonment of operation of passenger service from east boundary of Cypress Street to Granville Street.

THE STATEMENT BELOW SHOWS THE DIFFERENT WORKS WHICH WERE APPROVED FOR CONSTRUCTION BY ORDER OF THE BOARD ON RECOMMENDATION OF THE ENGINEERING DEPARTMENT AFTER STUDY OF THE APPLICATIONS AND PLANS, CHECKING OF ESTIMATES, INVESTIGATION OF COMPLAINTS AND ACCIDENTS, AND IN MANY CASES INSPECTION ON THE GROUND AND CONFERENCES WITH THE INTERESTED PARTIES DURING THE YEAR 1948.

Province	Highway crossings approved	Highway crossings closed	Construction and operation of branch lines and industrial spurs	Bridges and subways approved	Approval of operation over and under bridges	Highway diversions	Less than standard clearance	Railway connections	Interlocking plants and changes to interlocking plants approved	Operation through interlocking plants	Crossings protected by flashing lights and bells and wigwags	Changes in operating circuits of flashing lights and bells and wigwags	Electrically operated gates and flashing lights	Add lights to gate arms	Additional wigwag	Signal protection at bridges	Traffic lights at crossings	Inspection of railway line for carriage of traffic	Railway shops	Water, gas, oil and sewer pipes under railways	Mining tunnels	Establish sight lines	Diversion of railway line	Location of telephone lines	Exemption from fencing and cattle guards	Route map of railway approved	Operation through railway tunnel	Abandon operation of railway line	Total	
British Columbia	9	2	5	66	68	1	1	7	2	4	3	1	2	3	1	1	1	177
Alberta	15	4	5	3	4	3	.....	1	9	7	.....	.....	1	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	3	.....	.....	.....	58
Saskatchewan	15	4	2	9	10	2	1	.....	27	9	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	1	.....	.....	3	.....	.....	.....	86
Manitoba	11	.....	2	.....	7	.....	3	.....	13	10	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	50
Ontario	32	3	23	42	37	.....	13	.....	14	8	26	16	2	1	2	3	.....	.....	.....	7	.....	8	.....	.....	3	16	.....	.....	256
Quebec	23	4	8	6	3	1	6	.....	4	1	23	6	1	.....	.....	.....	.....	2	3	.....	3	.....	1	.....	11	2	.....	.....	106
New Brunswick	1	.....	.....	1	.....	.....	.....	.....	.....	.....	11	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	16
Nova Scotia	1	1	.....	3	.....	.....	5	.....	.....	.....	7	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	19
Prince Edward Island	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Total	108	18	45	130	129	7	29	1	74	37	71	30	5	1	2	4	1	2	3	11	2	10	4	4	37	2	1	1	769	

APPENDIX "E"

OTTAWA, Ontario,
February 14, 1949.

P. F. BAILLARGEON, Esq.,
Secretary,
Board of Transport Commissioners,
Ottawa, Ontario.

Dear Sir:

1. I submit, for the Board's Forty-fourth Report, the Annual Report of the Operating Department for the year ended December 31, 1948.

2. The Report is divided as follows:—

Part I—Operating

Part II—Mechanical

Part III—Inflammable Liquids and Explosives

Part IV—Fire Prevention.

3. In order to accomplish the work, hereunder described, it has necessitated the travelling of 472,694 miles by Officers of this Department.

4. PART I—OPERATING

Accidents Attended by Loss of Life or Personal Injury

STATISTICS

Accidents—

Total accident reports received from railways and investigated.....	2,933
Total persons killed.....	399
Total persons injured.....	3,464

Fatalities—

Passengers.....	16
Employees.....	92
Trespassers and others (Includes fatalities due to Highway Crossing Accidents) ..	291
Total.....	399

Injuries—

Passengers.....	553
Employees.....	2,188
Trespassers and others (Includes injuries due to Highway Crossing Accidents) ..	723
Total.....	3,464

Highway Crossing Accidents—

Accidents.....	414
Persons killed.....	159
Persons injured.....	566

Detailed statistical data regarding accidents during the year 1948 is given in statements appended hereto which, for ready reference, have been indexed as follows:

Statement No. 1.—Passengers, employees and others killed and injured on railways.

Statement No. 2.—Comparative statement of killed and injured on railways for years 1947 and 1948.

Statement No. 3.—Passengers, employees and others killed and injured, showing nature of accidents.

Statement No. 4.—Character of accidents and number of persons killed and injured on railways.

Statement No. 5.—Comparative statement of classes of accidents for years 1947 and 1948.

Statement No. 6.—Comparative totals by railways of killed and injured for years 1947 and 1948.

Statement No. 7.—Collisions involving personal injury.

Statement No. 8.—Derailments involving personal injury.

Statement No. 9.—Comparative statement showing number of persons killed and injured on railways for ten years ended December 31, 1948.

Statement No. 10.—Trespassers killed and injured, by Provinces and Railways.

Statement No. 11.—Showing more prominent accidents on railways for five-year period.

Statement No. 12.—Protection provided at highway crossings during 1948.

Statement No. 13.—Nature of highway crossing protection completed in each province during 1948.

Statement No. 14.—Highway crossing accidents, killed and injured in each province during 1948.

Statement No. 15.—Description of protection or non-protection in effect at crossings where accidents occurred during 1948.

Statement No. 15A.—Crossing accidents separating motor vehicles, or others.

Statement No. 16.—Summary of highway crossing accidents for ten-year period ended December 31, 1948.

Statement No. 17.—Contributory factors in highway crossing accidents.

Statement No. 18.—Locations of highway crossing accidents.

Statement No. 18A.—Graphic Chart.

Remarks

In accordance with Section 285 of the Railway Act, all railway companies under the jurisdiction of the Board are required to report all accidents attended with personal injury.

The number of accidents reported and investigated totalled 2,933 for the year 1948. These accidents involved 3,863 casualties, of which number 399 persons were killed and 3,464 were injured. This is an increase over the previous year of 400 accidents, a decrease of 17 persons killed and an increase of 441 injured.

Major train accidents (derailments and collisions) on all railways in Canada decreased from 80 in 1947 to 69 in 1948, a decrease of 11 accidents of this class compared with the previous year.

Included in the total of 2,933 accidents, (involving 3,863 casualties) were 185 accidents as a result of which 115 trespassers were killed and 77 injured. Detailed figures regarding accidents involving persons who were trespassing on railway property are shown by railways and provinces in Statement No. 10. This is an increase of 17 persons killed and an equal number of persons injured as compared with the year 1947, during which year 98 trespassers lost their lives and 77 were injured.

Highway crossing accidents for the year numbered 414, resulting in 159 persons killed and 566 injured. A comparison with the previous year is as follows:

	Accidents	Killed	Injured
1947.....	442	162	638
1948.....	414	159	566
Decrease.....	28	3	72

Of these 414 accidents, 382 involved motor vehicles resulting in 143 deaths and injured 544. The remainder of the accidents, 32, involved horse-drawn vehicles, pedestrians, etc., and resulted in 16 deaths and injuries to 22 persons.

Of the 414 accidents at highway crossings, 223 occurred during the daytime and 191 at night.

Accidents to the number of 117 were caused by auto vehicles running into the sides of trains at crossings, resulting in 27 persons being killed and 198 injured; 32 of this class of accident occurred during the daytime, and 85 at night.

Inspection of Passenger Equipment; Stations, Building and Premises

This work includes features of safety, cleanliness, lighting, accommodation, etc. A large number of matters have been brought to the attention of the proper officials with beneficial results.

Inspectors of the Board are likewise constantly reviewing questions of train operation and compliance with the general train operating rules.

During the year 1948 approximately 33,000,000 passengers travelled on Canadian railways, the passenger train mileage for the year totalling approximately 42,000,000 miles.

5.

PART II—MECHANICAL

STATISTICS

Motive Power—

Number of locomotives.....	5,205
Reports of Hydrostatic Tests, Removal of Lagging and Dome Caps, Testing of Staybolts, Washouts, Boilers and Appurtenances, etc. received.....	60,604

Inspection of Motive Power—

Locomotive inspections.....	8,279
Locomotives found defective.....	1,513
Defects.....	2,501

*Locomotive Boilers—**(Application for extension of time for removal of flues)—*

Applications received from railways.....	142
Internal inspections made.....	135
Applications granted.....	131
Applications refused.....	4

Stationary Boilers—

Number of stationary boilers.....	1,403
Inspection reports.....	2,821
Inspections made.....	517
Fire protective appliance inspection reports.....	1,861

Safety Appliance and Equipment Inspections—

Freight cars inspected.....	35,696
Freight cars found defective.....	2,639
Defects.....	4,032
Passenger coaches inspected.....	2,848
Passenger coaches found with defects.....	381

Inspection of Freight Cars for Correct Tare Weight—

Number of cars inspected.....	1,000
Number of cars found overdue for weighing for tare.....	148

Inspection of Freight Cars for Excessive Air Brake Piston Travel—

Number of cars inspected.....	9,955
Number of cars with excessive Piston Travel.....	582

Detailed statistical data for the year 1948 is given in statements appended hereto and indexed as follows:

Statement No. 19.—Particulars of freight equipment inspected.

Statement No. 20.—Defective safety appliances on freight cars.

Statement No. 21.—Particulars of locomotives inspected.

Statement No. 21A.—Statement of Boiler Explosions and Crown Sheets damaged—year 1948.

REMARKS

Inspection of Safety Appliances and Car Equipment

The work coming within this category is largely carried on under the provisions of Section 298 of The Railway Act and the Board's General Orders Nos. 102, 128, 261, 270, 346, 458, 461 and 515. In this connection reference is made to detailed statements Nos. 19, 20 and 21. The inspection of freight cars for excess brake piston travel has received considerable attention resulting in improved condition of cars; progress continues in the matter of maintenance of draft and buffing gears; the question of improved maintenance for various types of tank cars and their appurtenances has been given considerable attention; the construction of new mail and express cars has been followed closely by Inspectors of the Board; and the inspection of freight cars has resulted in the removal from service of a number of cars in deteriorated condition. Considerable inspection has likewise been carried out in connection with train lighting, heating and air-

conditioning of passenger equipment. In connection with cars overdue for weighing for tare it was found that out of 1,000 cars so inspected, 148 were found to be overdue. Attention of the railway was drawn to such cases and cars were worked to a scaling point, weighed and restencilled.

Inspection of Motive Power

The inspection of locomotive and car equipment, it will be readily understood, entails considerable time and labour, both on the ground and at headquarters, where the work of recording, checking and filing of the numerous reports filed by our Inspectors is carried on, and subsequent correspondence with railway companies involved with a view to having the defects remedied as promptly as possible in the interests of public safety and of employees engaged in train operations.

In addition Inspectors of the Board have been riding locomotives to determine the condition of motive power under actual working conditions.

A serious condition has developed during the year owing to the breakage of water gauge glasses on one of the major roads. Intensive research and study has been devoted to the problem in order to arrive at the basic cause but owing to the innumerable and variable conditions which exist, no definite conclusion has yet been reached. Our investigations are continuing.

Locomotive Boiler Extensions of Time

During the year the Board's Mechanical Inspectors made 135 internal examinations of locomotives. 128 applications were granted the full period of time requested.

Upon examination, it was found that 3 locomotives were in such condition that the full extension requested could not be authorized but extension for a shorter period of time was allowed. In 4 cases the conditions were such that the extensions could not be properly granted, and were refused.

Under General Order No. 473, Locomotive Boiler Inspection Order, 60,604 report forms of monthly and annual inspections, tests, etc., were filed by railway companies with the department during the year, covering 5,205 locomotives.

Inspection of Stationary Boilers

This feature is dealt with under General Orders Nos. 330 and 416. Inspections, totalling 517, were made of boilers and appurtenances during the year and reported upon, as well as the conditions of the boilerhouse. Defects on boilers reported were rectified.

Stationary Boiler Reports

Pursuant to General Order No. 330, the stationary boiler inspection Order, 2,821 report forms of semi-annual and annual inspections were filed during the year covering 1,403 stationary boilers; in addition, 1,861 monthly inspections were made of fire protective appliances on portable boilers on steam shovels, ditching machines and similar equipment under General Order No. 548.

Inspection and Testing of Air Reservoirs, Other Than on Locomotives

Pursuant to General Order No. 576 and 714, 4,434 report forms of inspection were filed and checked in compliance with the Regulations covering 4,073 air reservoirs.

Smoke Abatement

Considerable study has been given to the problem of smoke abatement, particularly in the City of Montreal. This has necessitated the holding of many consultations and meetings with the Railway and Civic authorities. The programme is being continued.

6. PART III—INFLAMMABLE LIQUIDS AND EXPLOSIVES

Inflammable Liquids: Handling and Storage on and Adjacent to Railway Property

Under the provisions of General Order No. 716 and Circular No. 241, there were 206 applications received for approval regarding location and changes to installations. These together with 23 applications in abeyance from the previous year, were investigated and disposed of as follows:

Total applications received.....	206
In abeyance from previous year.....	23
Total.....	229

How dealt with:

Cancelled.....	10
In abeyance.....	24
Approved and Orders issued.....	195
Total.....	229

These applications necessitated the examination of 687 plans and profiles. Inspection on the ground was necessary in many instances.

The 195 applications which were approved covered 3 Marine terminals, 175 bulk storage plants, 12 pipe lines only, 5 pumphouses or warehouses only; 144 additional storage tanks and pipe lines to same. There were 51 new installations including one Refinery.

Particulars of installations are as follows:

Number of Oil Companies making Installations	Number of Installations 1948	Number of Additional Tanks Installed 1948	Total Capacity Additional Storage Gallons (Imp.)
59	195	448	36,453,533

This work has necessitated extensive review of all the plans which have been submitted in order to determine their compliance with the Regulations. Many inspections and investigations have been made at the site of the installation, and discussions and consultations with the Representatives of the Companies concerned have taken considerable time of the Board's staff. The Board is constantly striving to improve bulk storage installations in order to reduce the hazards involved. There has been an increase in the number of companies that have become interested in these installations. As a result of the efforts which have been made, an improvement has been made in the general principles of bulk storage plants and the necessity of improving installations of pumps and storage and unloading facilities has been reviewed with the owners.

General Order No. 716 covering these Regulations has been issued superseding General Orders Nos. 441, 514, 530 and 594.

Liquefied Petroleum Gases; Handling and Storage on, or Adjacent to Railway Property

During the year 19 Applications were dealt with covering the installation of 23 storage containers having a total capacity of 498,116 gallons, Imperial.

One application for amending Order was received and dealt with. One application is in abeyance.

Consideration is being given to the Revision of General Order No. 597 governing the Handling and Storage of Liquefied Petroleum Gases.

It would appear that various organizations in Canada are becoming alive to the advantages of the use of this commodity in many different fields. Due to the lack of experience on the part of many in the handling of the commodity, numerous conferences have been held with the interested parties to ensure that all adequate safeguards are being taken.

Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight (Railway) and Specifications for Shipping Containers

These Regulations have been reviewed and revised Regulations issued effective March 1st, 1949. General Orders of the Board Nos. 709, 711, 713, 719 and 721 and Orders of the Board Nos. 70012 and 70973 were issued in connection with these regulations during the year.

Regulations for the Transportation by Express of Acids, Compressed Gases, Inflammables, Oxidizing Substances, Explosives, etc., and Specifications for Shipping Containers

During the year General Orders Nos. 712, 718 and 720 were issued.

Compressed Gas Cylinders

The greater availability of propane gas in Canada and the difficulties experienced in securing satisfactory quantities of cylinders from the United States has resulted in interest being shown in the manufacture of cylinders in Canada by a number of Canadian firms. This necessitated considerable study and innumerable conferences on the part of the Board's staff in order to ensure compliance with the Board's specifications for the construction of cylinders and the adoption of safe practices in the manufacturing and testing of cylinders. In this connection the approval of a disinterested inspection agency has been granted for the purpose of supervising the source of raw materials and manufacturing and testing methods at the plants of the manufacturers. Further developments in this connection are anticipated.

PART IV—FIRE PREVENTION

Inspection

Organization—Under the co-operative arrangements inaugurated in 1912 with the various Dominion and Provincial Forest Services, 231 officers and men of such services were under appointment as Inspectors for the Board, distributed as follows:

Nova Scotia, Department of Lands and Forests.	21
New Brunswick, Department of Lands and Mines, Forest Service.	11
Quebec, Department of Lands and Forests, Forest Protection Service.	31
Ontario, Department of Lands and Forests, Division of Forest Protection.	77
Manitoba, Department of Mines and Natural Resources, Forest Service.	6
Saskatchewan, Department of Natural Resources and Industrial Development, Office of Director of Forests.	4
Saskatchewan, Department of Natural Resources and Industrial Development, Office of Deputy Minister, Fire Guard Inspection, Prairie Lines.	2
Alberta, Department of Lands and Mines, Office of Director of Forestry.	10
British Columbia, Dept. of Lands, Forest Branch.	65
Dominion of Canada, Department of Mines and Resources, National Parks Bureau.	3
Yukon Territory, Royal Canadian Mounted Police.	1

Of the above, six officers were given appointments as Inspectors of Fire Protective Appliances on locomotives, distributed as follows:

Nova Scotia, Department of Lands and Forests.	1
New Brunswick, Department of Lands and Mines, Forest Service.	1
Quebec, Department of Lands and Forests, Forest Protection Service.	1
British Columbia, Department of Lands, Forest Branch.	3

During the fire season of 1948, these officers inspected the fire protective appliances on 1,505 locomotives. In addition, fire protective appliances were inspected on 3,307 locomotives by the Board's permanent staff, making a combined total of 4,812 locomotives inspected in connection with railway fire prevention.

Fire Hazard and Weather Conditions

NOVA SCOTIA.—During the 1948 fire season, the weather was such as to produce a very low fire hazard over most regions. A small number of areas did experience high hazard but few fires resulted. It is expected that the past season's record will be the best ever experienced, due mostly to precipitation occurring on Wednesdays and week ends when forest travel is greatest. During the fire season, there were 103 days of precipitation resulting in 33.21 inches of rain.

NEW BRUNSWICK.—The fire season of 1948 was more normal than for several years. Precipitation was not heavy but was well distributed. There were no periods of drought, consequently it was not necessary to close the forests to travel during the season. Sufficient rain generally fell during weekends to keep down the hazard particularly during May and June.

Fire hazards were not extreme at any period except perhaps on one or two occasions, but damp weather or rain always relieved the situation within a few days.

QUEBEC.—Generally speaking, precipitation was light in the Province during 1948 except in Gaspesia Region. In many cases although quite heavy precipitation was recorded which might give the impression that fire hazards would be normal or below, these rains were followed by protracted periods of drought which caused the hazard to rise rapidly. Spring fire hazards were reduced by rainfalls in May preceding foliation, but the fire hazard gradually built up during the summer till by September the situation as a whole became serious, which was terminated by light snow late in October.

ONTARIO.—The year 1948 ranks with the worst known as far as burning conditions for forest fires are concerned. During May and June extremely bad burning conditions prevailed across the Province with the worst conditions occurring to the north of Georgian Bay and the North Channel. During July and August burning conditions eased somewhat as drought conditions were temporarily alleviated by recurring rainfall of moderate intensity. However, in September drought conditions again prevailed and severe lightning storms occurred, particularly in Central Northern Ontario. During this period a record-breaking peak fire load prevailed in Central Northern Ontario. The drought conditions lessened in the Eastern half of the Province during October but became worse in the Western part, particularly in the Rainy Lake area and along the Ontario-Manitoba boundary. This condition extended to November 10th when fall rains and colder weather resulted in the end of the fire season.

MANITOBA.—1948 will go down in history as the worst fire season in Manitoba since 1929. More than 1,000,000 acres of land were burned over, compared with a twenty-year average 370,000 acres and an area one-third of that burned in 1929, the worst year on record.

The season started favorable. April was a cold, wet month, and only in the area East of Lake Winnipeg and along the Ontario Boundary were moisture conditions below average. The hazard developed very quickly, however; in May, action was taken on 118 fires, mostly in the Pre-Cambrian area and the Inter-Lake District. Lightning was responsible for a very large percentage of these fires, which were difficult to control. No rain of sufficient quantity to affect burning fires or the increase in hazard fell until the middle of June. This break was followed by another period of high and extreme hazard, which lasted until July 29th, when the only real break in the weather occurred during the entire fire

season. Rainfall in north-eastern Manitoba, however, was not sufficient to put out all the large fires burning there, and action, which started early in May, was continued until freeze-up in that region.

September was one of the driest months on record. Precipitation at Winnipeg of $\cdot 05''$ was the lowest recorded for this month in forty-seven years. Drought, during which no precipitation of $\cdot 10''$ or over was recorded between August and the end of October, lasted as long as sixty-six days.

Fires within Municipalities and districts adjoining forested lands were numerous during the fall, and covered large areas. Some of these fires spread into and damaged valuable forest lands. Some damage was done through the destruction of farm property, hay, etc., and several communities, including Pine Falls, were threatened.

The 1948 fire season ended by the middle of November, several weeks later than normal. Snow and rain allowed for the removal of crews at that time, but ground fires were still burning.

Poor soil moisture conditions and low water levels at freeze-up indicate that the 1949 fire season might start with a serious spring hazard situation.

Railways were not responsible for any serious fires, but some damage to railway property resulted from settlers' fires.

SASKATCHEWAN.—Though precipitation within the forested area of the Province may be considered as being rather light it was relatively well scattered and the Province did not experience a very severe fire season.

ALBERTA, NORTHERN—*Spring*.—Due to the heavy snowfall of the previous winter there was a good supply of water in the spring, but owing to the late spring and frozen condition of the ground at the breakup, this mainly ran off, without being absorbed by the soil to any extent. The spring was cool, until the first part of May when the weather changed suddenly and became dry and hot with heavy winds. Fire hazard rose suddenly about the middle of May and became quite high, especially on the Lac La Biche Division, and a great many fires started during this period.

Summer.—Weather continued hot and dry with very little precipitation and a high fire hazard to the middle of July when some light rains and cooler weather brought the fire hazard down to normal over most of this area.

Fall.—Precipitation continued very light with no humidity, bringing the fire hazard again above normal during October to the middle of November when light snow storms occurred over most of this area, bringing the hazard down to normal. The ground went into the winter in a very dry condition with only a very light cover of snow by the first of December, thus creating conditions which may lead to a very bad fire hazard next Spring.

ALBERTA, CENTRAL—*Spring*.—The winter of 1947-48 was open until February when heavy snows occurred until the end of April, the snow being from three to five feet on the level. In the early part of May the weather turned unusually warm and a heavy run off occurred, with flooded conditions general all over this area. From the middle of May to the middle of June the weather was dry and windy, with the exception of a few light showers, and the fire hazard became high until the latter part of June when rains brought the hazard down to below normal.

Summer.—Rains and cool weather kept the fire hazard below normal throughout the summer.

Fall.—From the first part of October to the middle of November the weather was dry and warm with some high winds and the fire hazard rose to above normal until terminated for the season by light snowfall around November 15th.

ALBERTA, SOUTHERN—*Spring*.—Late spring and light rains kept the fire hazard below normal all Spring.

Summer.—Frequent light rains and cool weather kept the fire hazard below normal throughout the summer.

Fall.—Warm dry weather during September raised the hazard to normal which with continued dry weather and heavy frost rose to above normal during October and the first part of November, the danger of fire occasioned the Reserves to be closed to public travel. Light snowfalls about the middle of November brought the fire season to a close.

BRITISH COLUMBIA.—General weather conditions applying throughout the Province during the 1948 fire season were the most favourable experienced for many years from a forest protection point of view. Short periods of hazard occurred periodically in all Districts but these were of only temporary duration and at no time during the season was a serious hazard build-up experienced.

VANCOUVER DISTRICT.—In the Vancouver Forest District above normal snowfall was recorded during pre-season winter and early spring months with run-off retarded into the early months of the fire season. The summer which followed brought well distributed rain and high humidity conditions. Precipitation was generally much above average. The season definitely concluded with a general heavy rainfall in mid-September.

PRINCE RUPERT DISTRICT.—In the Coastal region of the Prince Rupert Forest District, the early part of April, first half of May and the first half of June, proved hazardous in the Bella Coola region. This condition applied likewise to some extent in the immediate vicinity of Prince Rupert during the month of June. The Queen Charlotte Islands likewise suffered one of the driest seasons remembered, with creeks and wells which previously gave year round flow, drying up for a short period. This was of comparatively short duration, however, but winds from the west and northwest which are particularly dry, increased the hazard with low humidity conditions applying. Other than during the periods mentioned, the season proved fairly well average for these parts of the District. In the Interior portion of the District snowfall during the winter of 1947-48 was greater than during the previous several years. Spring run-off was late with consequent flood conditions occurring in all parts when the usual warm weather and rains prevailed in May and June. The month of May and the first half of June were the only periods at all hazardous. The balance of the season was wet with fairly numerous electric storms, most of which, fortunately, were accompanied by precipitation.

FORT GEORGE DISTRICT.—In the Fort George Forest District a cold spring after heavier than normal snowfall was experienced on both sides of the Rockies and warm weather did not occur until about mid-May. With the start of warmer weather, that portion of the District west of the Rockies experienced a dry period of approximately six weeks, broken by rain on July 1st. Following this period, rainfall in this region was heavier than normal and although a considerable number of electrical storms occurred, no serious outbreaks of fire resulted. East of the Rockies the pattern of weather following the May warm-up was much similar but wet weather extended further into the month of July. Generally speaking, the season was favourable.

KAMLOOPS DISTRICT.—In the Kamloops Forest District the wet cycle of weather experienced for the past several seasons continued with even more prolonged periods of precipitation. Unlike 1947, however, the spring hazard proved negligible with actual arrival of the warm weather several weeks later than the previous year. With the late spring arrived flood conditions which prevailed until July. Fortunately, during this period of serious floods with many sections of the

country isolated, very few fires occurred. It is notable that in the Cariboo portion of the District many hay meadows remained as lakes all year, a condition which has not been experienced for many seasons.

NELSON DISTRICT.—Weather in the Nelson Forest District during the season was the wettest that has been experienced in the records of that District. Winter snows were late in melting and in common with the Kamloops Forest District, serious flood conditions obtained as the warmer weather appeared. During the period May 1st to September 30th, the longest period without rain was a total of 17 days between August 29th and September 14th. This is something of a record for the District which ordinarily represents the most hazardous section of the Province.

Railway Fire Patrols

The Fire Patrol Requirements, under the terms of Paragraph 29, of General Order No. 548, were addressed to all the Railways concerned.

Statistics showing railway forested mileages upon which patrols are prescribed follow:

Total miles of railway classified as being in forested territory for fire protection purposes	13,670
Special section patrols prescribed on.....	6,327
Special velocipede patrols prescribed on.....	93
Special power speeder patrols prescribed on.....	1,415
Total miles on which special patrol prescribed.....	7,835
Total special patrolmen (estimated).....	1,023
Average number of miles of track per patrolman.....	7.66
Total miles in forested territory on which no special patrol required, detection, reporting and extinguishing of fires being a part of the regular duties of the section forces and other employees.....	5,835

Fire Statistics

Within the 13,670 railway mileage under the Board's jurisdiction classified as forested territory, 640 fires occurred during the Fire Season of 1948. 560 fires or 87.5 per cent of the total are attributed to railway causes, 48 fires or 7.5 per cent to other known causes and 32 fires or 5 per cent were of unknown origin. These fires burned a total of 24,320 acres with forest and other property loss valued at \$160,385.00. Of this area 6,281 acres were young forest growth, 7,829 acres merchantable timber, 3,967 acres slash or old burn not re-stocking and 6,243 acres of other classes of lands.

In addition to the foregoing there were reported 44 fires originating and burning in ties in the track which did not spread or cause damage other than to track ties.

Of the 560 fires attributed to railway causes, 498 were charged to locomotives and 62 to employees of the railways. The 498 fires, attributed to locomotives, comprise approximately 89 per cent of the total number of railway caused fires, burned approximately 97 per cent of the total area and caused 99.3 per cent of the estimated total monetary loss of forest and other property destroyed by railway fires.

The 62 fires attributed to employees comprise approximately 11 per cent of the total number of railway caused fires, burned approximately 3 per cent of the total area and caused .7 per cent of the estimated total monetary loss of forest and other property destroyed by railway fires.

48 fires originating within 300 feet of the track in forested territory are attributed to known causes other than the railway. Of these 35 are charged to campers and travellers, 9 to settlers and 4 to other known causes. 15 of these fires were incipient, 28 burned $\frac{1}{4}$ acre to ten acres each and 5 burned more than 10 acres. These fires burned 905 acres of young forest growth, 329 acres of merchantable timber, 2,818 acres of slash or old burn not re-stocking and 677 acres of other classes of lands, with a total damage to forest and other property estimated at \$3,232.00.

32 fires of unknown origin originated within 300 feet of track, burned a total of 2,158 acres with forest and other property loss valued at \$1,036.00.

Forest valuations given above are based on stumpage values.

During the 1948 Season a fire believed to have been caused by a locomotive originating 10 poles east of mileage 54 on the Oskelaneo Subdivision on June 6th, destroyed forest and other property valued at \$134,049.00 or approximately 83.5 per cent of the total estimated damage caused by all fires occurring within 300 feet of the railway within the forested mileage.

On June 12th, 1948, a fire believed to have been caused by a locomotive originating 4 miles north of Carcross, Yukon Territory burned over 6,400 acres of all classes of lands, or approximately 26% of the total area burned by all fires originating within 300 feet of the railway.

Detailed statistics are shown in statements appended hereto and indexed as follows:

Statement No. 22.—Summary of fires in forest sections within 300 feet of railway.

Statement No. 23.—Summary of fires of railway origin in forest sections.

Statement No. 24.—Summary by Provinces, of fires reported.

Right-of-Way Clearing

During the Summer of 1948 reports on the conditions of all rights-of-way through forested areas were submitted to the Board by the various District Inspectors and although the conditions found are as yet not satisfactory, considerable progress towards this end has been made.

Fire Guard Requirements

Fire Guard Requirements over almost all of the Prairie Subdivisions within the Province of Saskatchewan were reviewed and amended after inspection made by Provincial Inspectors under appointment with the Board, and in many instances new Fire Guard Exemption Charts were compiled and approved.

In accordance with the Requirements, 4,704 miles of fire guards were constructed or maintained in uncultivated lands (fenced grazing and wild lands) in non-forested sections of the Prairie Provinces.

Fire Guards, 1948

Railway	Mileage both sides of track to be accounted for exclusive of approved exemptions	Fireguard mileage constructed or maintained during year	Percent completion
Canadian Pacific.	3,742.95	2,841.80	76.0
Canadian National.	3,103.10	1,839.90	59.2
Northern Alberta.	26.20	22.30	85.0
	6,872.25	4,704.00	68.4

Respectfully submitted,

C. C. STIBBARD,

Director of Operation.

STATEMENT No. 1. — PASSENGERS, EMPLOYEES AND OTHERS KILLED AND INJURED ON RAILWAYS UNDER THE BOARD'S JURISDICTION FOR YEAR ENDED DECEMBER 31st, 1948

Name of Railway	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Canadian National.	13	329	57	1,231	152	384	1,544	222	1,944
Canadian Pacific.	2	183	30	865	111	256	1,210	143	1,304
Algoma Central & Hudson Bay.			3	2		3	8	3	5
British Columbia Electric.					2	17	13	2	17
Central Vermont.						4	1		4
Chesapeake & Ohio.				1	1	3	5	1	4
Dominion Atlantic.		1		9	1		11	1	10
Esquimalt & Nanaimo.		1		1	2	3	7	2	5
Grand River.				1		7	6		8
Great Northern.		1		11		4	15		16
Lake Erie & Northern.						6	3		6
Michigan Central.				1	9	5	12	9	6
Midland Railway of Manitoba.						1	1		1
Montreal & Southern Counties.		6			4	1	3	4	7
Napierville Junction.		3				2	4		5
New York Central.		1		9		5	13		15
Niagara, St. Catharines & Toronto.		22		1	4	2	3	4	25
Northern Alberta.	1	6	1	44	1	5	48	3	55
Quebec Central.				2	1	3	6	1	5
Quebec Railway Light & Power.					1		1	1	
Sydney & Louisburg.						2	2		2
Temiscouata.					1	3	1	1	3
Toronto, Hamilton & Buffalo.			1	8	1	7	14	2	15
Toronto Terminals.				1			1		1
White Pass and Kukon.				1			1		1
Total.	16	553	92	2,188	291	723	2,933	399	3,464

STATEMENT No. 2. — COMPARATIVE STATEMENT OF KILLED AND INJURED FOR YEARS
ENDED DECEMBER 31, 1947 AND DECEMBER 31, 1948

	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
1948.....	16	553	92	2,188	291	723	2,933	399	3,464
1947.....	34	534	91	1,722	291	767	2,533	416	3,023
Increase.....		19	1	466			400		441
Decrease.....	18					44		17	

STATEMENT No. 3. — PASSENGERS, EMPLOYEES AND OTHERS KILLED AND INJURED, AND NATURE OF ACCIDENTS, FOR YEAR ENDED DECEMBER 31, 1948

Character of Accident	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Derailment		22	2	22		2	21	2	46
Collision head-on		56	8	50			14	8	106
Collision rear-end	8	137	3	51	1		20	12	188
Collision in yard		15		26			9		41
Collision with cars account open switch		16		16		7	5		39
Equipment struck in yard during switching or transfer movement		4		19			14		23
Sideswipe	1	1	1	16		2	11	1	19
Public highway crossing protected by gates					3	7	8	3	7
Public highway crossing protected by automatic highway traffic signals						1	1		1
Public highway crossing protected by bell				1	2	3	6	2	4
Public highway crossing protected by bell and wigwag		5		1	23	48	40	23	54
Public highway crossing protected by flashing light signals and bells					3	8	10	3	8
Public highway crossing protected by watchman					1	7	7	1	7
Public highway crossing unprotected		4	1	46	126	435	342	127	485
Private crossing				4	14	54	34	14	58
Trespassing					115	77	185	115	77
Working on or about engine			2	267			256	2	267
Miscellaneous	1	12	3	211	1	22	243	5	245
Adjusting couplers, cou- pling and uncoupling			5	67			72	5	67
Run down by engine or car between stations			3	2			5	3	2
Hand car—Accidents caused by hand car, motor or velocipede			8	164		11	109	8	175
Hand car, motor car, velo- cipede struck by train			7	24			27	7	24
Crawling between cars, over couplers				3		1	4		4
Passing between cars, be- tween couplers			1	6			7	1	6
Struck by engine or cars on adjoining track			1	23			23	1	23
Struck by switch stand, water spout, mail crane, or other projection				20			20		20
Crushed between cars and buildings, lumber piles				8			8		8
Getting on and off passen- ger train	3	66				1	69	3	67
Injured when taking coal or water				23			23		23
Rock slides, or other ob- structions on track			5	13			7	5	13
Rough coupling		9		79		18	93		106
Riding on pilot or foot- board of engine			4	47		1	50	4	48
Obstructions, overhead and on ground				8			8		8
Falling off top of car			1	30			31	1	30
Falling between cars				4			4		4
Application and handling of air brakes, stopping of trains and adjusting slack		30		144		1	147		175

STATEMENT No. 3. — PASSENGERS, EMPLOYEES AND OTHERS KILLED AND INJURED, AND NATURE OF ACCIDENTS, FOR YEAR ENDED DECEMBER 31, 1948 (cont.)

Character of Accident	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Employees getting off train in motion.....			1	210			210	1	210
Employees boarding train in motion.....			2	85			87	2	85
Slipped on ice.....				25			25		25
Doors closing and other minor accidents in baggage cars and coaches.....		158		97		3	257		258
Run down by engine or cars at stations or in yards.....			23	47		3	73	23	50
Caught in frog, guard rail or switch rod.....				2			2		2
Caught by engine or car while throwing switch.....				1			1		1
Falling off side and end ladders of cars.....				113			113		113
While working hand brake.....				63		1	64		64
Handling freight and baggage.....				24		1	25		25
Loading and unloading O.C.S. material.....				34	1		34	1	34
Work train equipment, coal chutes and water tanks.....			2	24			22	2	24
Cars moved while being loaded or unloaded.....				5		6	1		11
Carmen working on or under cars on running track when moved.....			1	2			3	1	2
Coupling and uncoupling hose.....				15			15		15
Turning angle-cock.....			1	4			5	1	4
Coach window falling.....		7		2			9		9
Loads shifting in transit or switching.....				9			9		9
Falling or jumping off passenger train between stations.....	4	11					14	4	11
Cars running away; not under control.....			3	11	1	2	14	4	13
Washout.....			4	9			5	4	9
Derailment of equipment in yard tracks (individual).....				8		1	9		9
Caught between running boards.....				3			3		3
Totals.....	16	553	92	2,188	291	723	2,933	399	3,464

STATEMENT No. 4. — CHARACTER OF ACCIDENTS AND NUMBER OF PERSONS KILLED AND INJURED ON RAILWAYS
FOR YEAR ENDED DECEMBER 31, 1948

	C.N.R.			C.P.R.			Miscellaneous Railways			Total	
	Acci- dents	Killed	Injured	Acci- dents	Killed	Injured	Acci- dents	Killed	Injured	Killed	Injured
Derailment.....	13	2	32	6	..	12	2	..	2	21	46
Collision head-on.....	10	7	63	3	1	20	1	..	8	106	188
Collision rear-end.....	15	12	177	4	..	10	1	..	12	20	41
Collision in yard.....	8	..	33	1	..	8	..	..	9	5	39
Collision with cars account open switch.....	5	..	39	..	..	..	..	..	..	..	..
Equipment struck in yard during switching or transfer movement.....	7	..	13	6	..	8	1	..	14	23	23
Sideswipe.....	4	1	5	7	..	14	..	..	11	19	19
Public highway crossing protected by gates.....	4	1	5	4	2	2	..	..	8	3	7
Public highway crossing protected by automatic highway traffic signals.....	..	..	..	..	..	..	..	..	..	..	..
Public highway crossing protected by bell.....	4	1	3	1	1	1	..	..	1	1	1
Public highway crossing protected by bell and wigwag.....	19	11	23	11	4	19	10	8	6	23	54
Public highway crossing protected by flashing light signals and bells.....	8	2	7	2	1	1	..	..	10	3	8
Public highway crossing protected by watchman.....	7	1	7	..	..	..	..	..	7	1	7
Public highway crossing unprotected.....	163	60	243	134	54	180	45	13	62	127	485
Private crossing.....	21	11	45	8	3	8	5	..	5	14	58
Trespassing.....	91	62	33	77	47	33	17	6	11	115	77
Working on or about engine.....	145	1	149	101	1	107	10	..	11	256	267
Miscellaneous.....	152	4	151	85	1	88	6	..	6	243	245
Adjusting couplers, coupling and uncoupling.....	47	2	45	24	2	22	1	1	..	72	67
Run down by engine or car between stations.....	4	3	1	1	..	1	..	..	14	5	2
Hand car—Accidents caused by hand car, motor or velocipede.....	72	6	120	29	2	41	8	2	14	109	175
Hand car, motor car, velocipede struck by train.....	13	3	13	12	3	10	2	1	4	27	24
Crawling between cars, over couplers.....	3	..	3	..	..	..	1	..	1	4	4
Passing between cars, between couplers.....	4	..	4	3	1	2	..	..	7	7	6
Struck by engine or cars on adjoining track.....	9	1	8	14	..	15	..	..	23	1	23
Struck by switch stand, water spout, mail crane, or other projection.....	6	..	6	12	..	12	2	..	2	20	20
Crushed between cars and buildings, lumber piles.....	4	..	4	4	..	4	..	..	8	8	8
Getting on and off passenger train.....	20	..	20	44	2	43	5	1	4	3	67
Injured when taking coal or water.....	7	..	7	16	..	16	..	..	23	23	23
Rock slides, or other obstructions on track.....	5	5	10	2	..	3	4	..	7	5	13
Rough coupling.....	50	..	56	39	..	46	4	..	4	93	106
Riding on pilot or footboard of engine.....	24	2	22	22	1	23	4	1	3	4	48
Obstructions, overhead and on ground.....	5	..	5	3	..	3	..	..	8	8	8
Falling off top of car.....	17	..	17	14	1	13	..	..	31	1	30

STATEMENT No. 5. — COMPARATIVE STATEMENT IN TOTALS OF KILLED AND INJURED, BY CLASS OF ACCIDENT,
FOR YEARS ENDED DECEMBER 31, 1947, AND DECEMBER 31, 1948

	1947			1948			Increase			Decrease		
	Acci- dents	Killed	Injured	Acci- dents	Killed	Injured	Acci- dents	Killed	Injured	Acci- dents	Killed	Injured
Derailment.....	36	5	133	21	2	46	.....	.....	.....	15	3	87
Collision head-on.....	13	32	197	14	8	106	.....	.....	.....	.....	24	91
Collision rear-end.....	26	6	78	20	12	188	.....	6	110	6	.....	.....
Collision in yard.....	2	1	2	9	.....	41	7	.....	39	.....	1	.....
Collision with cars account open switch.....	3	1	13	5	.....	39	2	.....	26	.....	1	.....
Equipment struck in yard during switching or transfer movement.....	10	.....	12	14	.....	23	4	.....	11	.....	.....	.....
Sideswipe.....	13	2	17	11	1	19	2	2	2	2	1	.....
Public highway crossing protected by gates.....	6	1	6	8	3	7	.....	2	1	.....	.....	.....
Public highway crossing protected by automatic highway traffic signals.....	.....	.....	.....	1	.....	1	1	.....	1	.....	.....	.....
Public highway crossing protected by bell.....	8	5	9	4	2	4	.....	7	.....	2	3	5
Public highway crossing protected by bell and wigwag.....	45	16	73	40	23	54	.....	.....	.....	5	.....	19
Public highway crossing protected by flashing light signals and bell.....	6	4	9	10	3	8	4	.....	.....	.....	1	1
Public highway crossing protected by watchman.....	10	1	18	7	1	7	.....	.....	.....	.....	.....	.....
Public highway crossing unprotected.....	367	135	523	342	127	485	.....	.....	.....	3	8	11
Private crossing.....	47	22	42	34	14	58	.....	.....	16	25	8	38
Trespassing.....	171	98	185	115	115	77	14	17	.....	13	8	.....
Miscellaneous.....	165	1	170	256	.....	267	91	1	97	.....	.....	.....
Working on or about engine.....	153	1	169	243	5	245	90	4	76	.....	.....	.....
Adjusting couplers, coupling and uncoupling.....	65	3	62	72	5	67	7	2	5	.....	.....	.....
Run down by engine or car between stations.....	11	9	3	5	3	2	.....	3	72	6	6	1
Hand car—Accidents caused by hand car, motor or velocipede.....	80	5	103	109	8	175	29	.....	.....	.....	.....	.....
Hand car, motor car, velocipede struck by train.....	24	13	22	27	7	24	3	.....	2	.....	6	.....
Crawling between cars, over couplers.....	1	.....	1	4	.....	4	3	.....	3	.....	.....	.....
Passing between cars, between couplers.....	10	1	9	7	1	6	.....	.....	.....	3	.....	3
Struck by engine or cars on adjoining track.....	9	2	7	23	1	23	14	.....	16	.....	1	.....
Struck by switch stand, water spout, mail crane, or other projection.....	21	2	19	20	.....	20	.....	.....	1	1	2	.....
Crushed between cars and buildings, lumber piles.....	13	1	12	8	.....	8	.....	.....	.....	5	1	4
Explosion of locomotive boiler.....	1	1	1	.....	.....	.....	.....	.....	.....	1	1	1
Getting on and off passenger train.....	60	3	58	69	3	67	9	.....	9	.....	.....	.....
Injured when taking coal or water.....	17	.....	17	23	.....	23	6	.....	6	.....	.....	.....
Rock slides, or other obstructions on track.....	4	5	9	7	5	13	3	.....	4	.....	.....	.....
Rough coupling.....	84	.....	101	93	.....	106	9	.....	5	.....	.....	.....
Riding on pilot or footboard of engine.....	26	.....	26	50	4	48	24	4	22	.....	.....	.....
Obstructions, overhead and on ground.....	10	2	8	8	.....	8	.....	.....	.....	2	2	.....
Falling off top of car.....	37	5	32	31	1	30	.....	.....	.....	6	4	2

	5	2	3	4						1	1	2	
Falling between cars.....	135		167	147			4						
Application and handling of air brakes, stopping of trains and adjusting slack.....	163	3	160	210	1		175	12		8			
Employees getting off train in motion.....	95	1	94	87	2		85	47		50		2	
Slipped on ice.....	27		27	25			25		1		8		9
Doors closing and other minor accidents in baggage cars and coaches.....	202										2		2
Run down by engine or cars at stations or in yards.....	59	15	202	257			258	55		56			
Caught in frog, guard rail or switch rod.....	1	1	44	73	23		50	14	8	6			
Caught by engine or car while throwing switch.....	2	1	1	2			2	1		1			
Falling off side and end ladders of cars.....	81		2	1									
While working hand brake.....	81		81	113			113	32		32		1	1
Handling freight and baggage.....	69		70	64			64						
Loading and unloading O.C.S. material.....	14		14	25			25	11		11		5	6
Work train equipment, coal chutes and water tanks.....	17		17	34	1		34	17	1	17			
Cars moved while being loaded or unloaded.....	19	3	16	22	2		24	3					
Carmen working on or under cars on running track when moved.....	2	1	1	1			11			8		1	
Coupling and uncoupling hose.....	3	1	2	3						10		1	
Turning angle-cock.....	14	1	13	15	1		2						
Coach window falling.....	11		11	5	1		15	1		2		1	
Loads shifting in transit or switching.....	5		5	9			4		1		6		7
Falling or jumping off passenger train between stations.....	8		9	9			9	4		4			
Cars running away; not under control.....	21	5	16	14	4		11	1					
Washout.....	10		15	14	4		13	4	4		7	1	5
Individual derailment of equipment in yard tracks.....	1		1	5	4		9	4	4	8		2	
Caught between running boards.....	12	1	11	9			9			3		1	2
3	3		3	3			3						
Totals.....	2,533	416	3,023	2,933	399	3,464	529	65	738	129	82	297	

	Accidents	Killed	Injured
1948.....	2,933	399	3,464
1947.....	2,533	416	3,023
Increase.....	400		441
Decrease.....		17	

TRANSPORT COMMISSIONERS OF CANADA

STATEMENT No. 6. — COMPARATIVE STATEMENT IN TOTALS OF KILLED AND INJURED
FOR YEARS ENDED DECEMBER 31, 1947, AND DECEMBER 31, 1948

Railway	1947		1948		Increase		Decrease	
	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
Canadian National.....	218	1,660	222	1,944	4	284		
Canadian Pacific.....	152	1,131	143	1,304		173	9	
Algoma Central and Hudson Bay..	1	8	3	5	2			3
British Columbia Electric.....	3	27	2	17			1	10
Central Vermont.....	1	1		4		3	1	
Chesapeake and Ohio.....	1	7	1	4				3
Dominion Atlantic.....	3	16	1	10			2	6
Esquimalt and Nanaimo.....	2	11	2	5				6
Essex Terminal.....		1						1
Grand River.....	2	13		8			2	5
Great Northern.....	2	16		16			2	
Lake Erie and Northern.....	2	1		6		5	2	
London and Port Stanley.....		2						2
Michigan Central.....	14	11	9	6			5	5
Midland Railway of Manitoba.....		2		1				1
Montreal and Southern Counties...	3	12	4	7	1			5
Napierville Junction.....	2	6		5			2	1
New York Central.....		12		15		3		
Niagara, St. Catharines and Toronto	1	12	4	25	3	13		
Northern Alberta.....	3	32	3	55		23		
Oshawa Electric.....		2						2
Quebec Central.....	4	12	1	5			3	7
Quebec Railway Light and Power..	1	4	1					4
Sydney and Louisburg.....		1		2		1		
Temiscouata.....	1	3	1	3				
Toronto, Hamilton and Buffalo....		19	2	15	2			4
Toronto Terminals.....				1		1		
White Bass and Yukon.....		1		1				
Totals.....	416	3,023	399	3,464	12	506	29	65

	Accidents	Killed	Injured
1948.....	2,933	399	3,464
1947.....	2,533	416	3,023
Increase.....	400	....	441
Decrease.....	....	17	....

COLLISIONS INVOLVING PERSONAL INJURY DURING THE YEAR ENDED DECEMBER 31st, 1948

Investigation File	Date	Railway	Place	Province	Killed	Injured	Remarks
46329	Jan. 13	C.N.R.	Fire River, Oba Sub., Mileage 74.	Ont.	..	2	Collision rear-end.
46160	Jan. 18	C.N.R.	Manouan Sub., Mileage 112.5.	Que.	..	55	Collision rear-end.
46784	Feb. 18	C.N.R.	Gravenhurst Yard, Newmarket Sub., Mileage 111.8.	Ont.	..	1	Collision in yard.
46402	Feb. 28	C.N.R.	Hanna, Oyen Sub.	Alta.	6	5	Collision head-on.
46551	Mar. 5	C.N.R.	Thamesville, Chatham Sub., Mileage 46.50.	Ont.	..	9	Collision head-on.
46530	Mar. 8	C.N.R.	Lumby Jet., Lumby Sub., Mileage 0.01.	B.C.	..	6	Collision head-on.
46574	Mar. 14	C.N.R.	Toronto, Eastward High Line Track.	Ont.	..	1	Collision rear-end.
46948	Apr. 21	C.N.R.	Drumheller Sub., 10 poles West of Mile Post 4.	Alta.	..	8	Collision head-on.
46716	Apr. 24	C.N.R.	Edmonton, Calder Shop Track.	Alta.	..	1	Collision in yard.
46720	Apr. 24	C.N.R.	Edmonton, Montfort Sub., Mileage 9.7.	Que.	..	1	Collision rear-end.
46862	May 1	C.N.R.	St. Eustache, Cowan Sub.	Alta.	..	59	Collision rear-end.
46859	May 14	C.N.R.	St. Noel, Matapedia Sub., Mileage 83.33.	Man.	..	2	Collision account open switch.
47123	June 9	C.N.R.	Pointe à la Pêche, Cascapedia Sub., Mileage 22.	Que.	1	2	Collision rear-end.
47076	June 9	C.N.R.	Niagara Falls, Crimby Sub., Mileage 0.60.	Que.	..	2	Collision rear-end.
47061	June 13	C.N.R.	Oshawa Sub., Mileage 351.72.	Ont.	..	13	Collision account open switch.
47088	July 3	C.N.R.	Harle Sub., Mileage 109.	Man.	1	3	Collision rear-end.
47178	July 15	C.N.R.	Thunder River, Albeda Sub.	Ont.	..	32	Collision rear-end.
47209	July 17	C.N.R.	Montreal, Victor, near Bede.	B.C.	..	2	Collision head-on.
47179	July 28	C.N.R.	Barnaby, Victor, near Bede.	Que.	..	3	Collision head-on.
47334	Aug. 4	C.N.R.	West Winnipeg, Harle Sub.	N.B.	..	28	Collision head-on.
47584	Aug. 13	C.N.R.	Malone Bay, Chester Sub., Mileage 66.74.	Man.	..	14	Collision account open switch.
47423	Aug. 17	C.N.R.	Zelma, Asouth Sub.	N.S.	..	4	Collision in yard.
47562	Sept. 1	C.N.R.	Georgetown, West of Brampton Sub., Mileage 29.77.	Sask.	..	5	Collision head-on.
47643	Sept. 6	C.N.R.	Campbellford Sub., Mileage 45.75.	Ont.	..	3	Collision in yard.
47819	Sept. 6	C.N.R.	St. Quentin Sub., Mileage 10.	Ont.	1	1	Collision rear-end.
47799	Sept. 1	C.N.R.	Bosdale, west end of yard, Sydney Sub.	N.B.	..	3	Collision rear-end.
47803	Sept. 25	C.N.R.	Maria, Cascapedia Sub., Mileage 52.61.	N.S.	..	3	Collision rear-end.
47733	Oct. 3	C.N.R.	Sydney Yard, Sydney Sub., Mileage 100.2.	Que.	..	4	Collision rear-end.
47733	Oct. 8	C.N.R.	Mulgrave Sub., Mileage 78.3.	N.S.	..	2	Collision head-on.
47742	Oct. 7	C.N.R.	Toronto, King St., Subway, Brampton Sub.	N.S.	..	5	Collision rear-end.
47682	Oct. 12	C.N.R.	Beaverton, Bala Sub., Mileage 64.2.	Ont.	..	3	Collision rear-end.
47854	Oct. 10	C.N.R.	Warell, Regina Terminal Sub.	Ont.	1	15	Collision head-on.
47849	Oct. 28	C.N.R.	Sleemans, Fort Frances Sub.	Sask.	..	1	Collision in yard.
47946	Oct. 24	C.N.R.	Hornepayne Yard, Caramat Sub., 9 poles West of Mileage 1.	Ont.	..	1	Collision head-on.
48023	Nov. 18	C.N.R.	Winnipeg, Westward Lowline.	Ont.	..	3	Collision in yard.
48351	Nov. 26	C.N.R.	Flin Flon Jet., Flin Flon Sub.	Man.	..	3	Collision in yard.
48322	Dec. 29	C.N.R.	Tionaga, Ruel Sub., Mileage 125.8.	Man.	..	2	Collision rear-end.
46716	Dec. 25, 1947	C.P.R.	Causapsal Yard, Matapedia Sub., Mileage 47.17.	Que.	..	4	Collision head-on.
46732	Apr. 7	C.P.R.	Cowansville, Newport Sub., Mileage 7.02.	Que.	..	2	Collision rear-end.
47039	June 2	C.P.R.	Macklin, Hardisty Sub., Mileage 96.6.	Sask.	..	2	Collision rear-end.
47343	Aug. 22	C.P.R.	Santoy, Heron Bay Sub., Mileage 94.	B.C.	..	14	Collision head-on.
47649	Aug. 30	C.P.R.	Grand Forks, Boundary Sub., Mileage 39.2.	B.C.	..	2	Collision head-on.
48041	Sept. 15	C.P.R.	Gurney, Nipigon Sub., Mileage 76.7.	B.C.	..	4	Collision rear-end.
48041	Dec. 2	C.P.R.	Nicomen, Cascade Sub., Mileage 76.7.	B.C.	..	3	Collision rear-end.
46901	June 11	C.P.R.	Sidewood, Maple Creek Sub., Mileage 57.	Sask.	1	4	Collision head-on.
47801	Sept. 29	N.St.C. & T. A.C. & H.B.	Selm, east of Woodruffs, Port Dalhousie Sub., Mileage 3.95. Hilda, Northern Sub., Mileage 207.7.	Ont.	..	23	Collision head-on. Collision rear-end.
Totals				Ont.	20	374	

	Accidents		Injured	
	Killed	Injured	Killed	Injured
1948	48	374	20	374
1947	44	290	40	290
Increase	4	84	..	84
Decrease	..	..	20	..

STATEMENT No. 8. — DERAILMENTS INVOLVING PERSONAL INJURY DURING THE YEAR ENDED DECEMBER 31st, 1948

Investigation File	Date	Railway	Place	Province	Killed	Injured	Remarks
46359	Jan. 16	C.N.R.	Lazare, Miniota Sub., Mileage 61.	Man.	..	1	When attempting to make flying switch car derailed.
46702	Mar. 2	C.N.R.	St. Andre, Montmagny Sub., Mileage 16.1	Que.	1	11	Train running at excessive speed when entering passing track resulting in engine turning over.
46669	Mar. 17	C.N.R.	Bridge Sub., Mileage 2.	Que.	..	1	Broken rail.
46703	Mar. 25	C.N.R.	Tyup, Tidewater Sub.	B.C.	..	1	Tender of engine and two cars following it were derailed. (Insecure track)
46704	Mar. 22	C.N.R.	Cowichan Sub.	B.C.	..	1	Two cars and caboose derailed. (Soft track)
46868	Apr. 29	C.N.R.	Makamik Sub., 17 poles east of Mileage 60	Que.	1	7	Soft spots in track, coupled with apparent failure of Engineer to properly control speed on descending grade.
47089	May 28	C.N.R.	Caspedia Sub., Mileage 8.	Que.	..	1	Unbalanced load in C.N.R. Box Car No. 525823.
47266	June 10	C.N.R.	Tete Jaune Sub., Mileage 27.5.	B.C.	..	1	Soft track.
47213	July 8	C.N.R.	Dinsmore, Elrose Sub.	Sask.	..	2	Deraiment due to soft track.
47357	July 17	C.N.R.	Skeena Sub., Mileage 11.9. U.S.	B.C.	..	1	Truck of baggage car derailed. Defective switch.
48037	Aug. 23	C.N.R.	Lacolle, Alexandria Sub., Mileage 13.	Que.	..	2	Excessive speed in curve on descending grade, causing oscillation of cars.
47783	Sept. 24	C.N.R.	Bengough Sub., Mileage 41.	Sask.	..	1	Front wheels of leading truck on pile driver No. 50817 lifted over north rail, causing derailment.
O.D.X. 93434	Dec. 14	C.N.R.	Wabamun Sub., Mileage 109.8.	Alta.	..	2	Deraiment account broken axle pony truck.
46459	Feb. 4	C.P.R.	Musk, White River Sub.	Ont.	..	1	Freight train derailed. Piece of timber used as a spacer or filler block fell from car of timber on train 1st No. 80.
46456	Feb. 6	C.P.R.	Winnipeg Beach Sub., Mileage 5.5.	Man.	..	2	Broken rail.
46733	Apr. 8	C.P.R.	Near Terrace Bay, Heron Bay Sub., Mileage 108.	Ont.	..	4	Broken rail.
46718	Apr. 5	C.P.R.	Neptune Sub., Mileage 12	Sask.	..	2	Snowplow derailed. Account of snow conditions.
46910	May 7	C.P.R.	Prescott Junction	Ont.	..	2	Deraiment account of broken rail.
47001	May 16	C.P.R.	Vancouver, Cascade Sub., Mileage 124.4	B.C.	..	1	Engine derailed account running over derail.
47675	Aug. 24	N.A.R.	Near Bluesky, Peace River Sub., Mileage 93.2	Alta.	..	1	Uneven track.
48284	Dec. 14	N.A.R.	Grande Prairie Sub., Mileage 95.6.	Alta.	..	1	Broken rail.
Totals.....					2	46	
				Number of Accidents.		Killed	Injured
				21		2	46
1948.....				36		5	133
1947.....				15		3	87
Decrease.....							

STATEMENT No. 9.—TOTAL NUMBER OF PERSONS KILLED AND INJURED ON RAILWAYS
FOR THE TEN YEARS ENDED DECEMBER 31, 1948

	Passengers		Employees		Others		Total	
	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
1939.....	3	374	57	820	252	509	312	1,703
1940.....	5	304	58	872	250	578	313	1,754
1941.....	14	629	113	1,246	292	671	419	2,546
1942.....	44	779	123	1,225	283	661	450	2,665
1943.....	12	593	118	1,588	227	638	357	2,819
1944.....	10	472	87	1,820	256	585	353	2,877
1945.....	8	627	81	1,807	269	814	358	3,248
1946.....	5	435	89	1,677	231	607	325	2,719
1947.....	34	534	91	1,722	291	767	416	3,023
1948.....	16	553	92	2,188	291	723	399	3,464
Totals.....	151	5,300	909	14,965	2,642	6,553	3,702	26,818

STATEMENT No. 10. — TRESPASSERS KILLED AND INJURED, BY PROVINCES AND RAILWAYS, FOR YEAR ENDED DECEMBER 31st, 1948

	Prince Edward Island			Nova Scotia			New Brunswick			Quebec			Ontario			Manitoba			Saskatchewan			Alberta			British Columbia			Totals		
	Acc.	K.	I.	Acc.	K.	I.	Acc.	K.	I.	Acc.	K.	I.	Acc.	K.	I.	Acc.	K.	I.	Acc.	K.	I.	Acc.	K.	I.	Acc.	K.	I.	Acc.	K.	I.
Canadian National.....	1	..	1	4	1	3	4	2	2	19	12	8	37	13	1	1	1	..	6	4	2	5	3	2	4	2	2	91	62	33
Canadian Pacific.....	2	2	..	7	3	4	27	12	..	4	..	..	4	3	1	10	6	5	22	14	10	77	47	33
Algoma Central and Hudson Bay.....	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	3
British Columbia Electric.....	3	1	3
Dominion Atlantic.....	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	..
Esquimaux and Nanaimo.....	3	1	2
Great Northern.....	3	1	3
Michigan Central.....	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..
Montreal and Southern Counties.....	1	..	1	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	1	1	1
Northern Alberta.....
Quebec Rly. Light, Heat and Power.....	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1
Sydney and Louisburg.....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals.....	1	..	1	6	2	4	6	4	2	28	16	13	77	26	6	5	1	10	7	3	16	10	7	35	17	20	185	115	77	77

I. — Injured

K. — Killed

Acc. — Accidents

STATEMENT No. 11. — PERSONS KILLED AND INJURED IN THE MORE PROMINENT ACCIDENTS ON THE VARIOUS RAILWAYS, UNDER THE JURISDICTION OF THE BOARD, SHOWN SEPARATELY FOR YEARS ENDED DECEMBER 31st, 1944, 1945, 1946, 1947 AND 1948

	1944		1945		1946		1947		1948		Total	
	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
Derailment.....	10	141	3	173	2	63	5	133	2	46	22	556
Collision head-on.....	2	98	8	190	8	109	32	197	8	106	58	700
Collision rear-end.....	2	129	6	109	9	70	6	78	12	188	35	574
Collision in yard.....	.....	2	.....	22	.....	59	1	2	.....	41	1	126
Collision at diamond crossing.....	.....	6	.....	29	.....	2	.....	.....	.....	.....	.....	37
Collision with cars account open switch.....	1	20	.....	20	.....	24	1	13	.....	39	.....	116
Highway crossing protected.....	33	84	40	110	20	74	27	115	32	81	152	464
Highway crossing unprotected.....	108	363	91	507	100	413	135	523	127	485	561	2,291
Adjusting couplers, coupling and uncoupling.....	3	46	3	76	6	50	3	62	5	67	22	301
Trespassing.....	92	70	110	75	91	90	98	77	115	77	506	389
Hand car, motor car, velocipede struck by train.....	6	39	8	59	12	38	13	22	7	24	46	182
Struck by switch stand, water spout, nail crane or other projection.....	1	18	.....	17	.....	15	2	19	.....	20	3	89
Crushed between cars and buildings, lumber piles.....	.....	18	1	13	1	8	1	12	.....	8	3	49
Getting on and off passenger train.....	2	65	5	49	1	53	3	58	3	67	14	292
Falling off top of car.....	.....	42	5	22	2	48	5	32	1	30	15	174
Falling between cars.....	.....	.....	.....	1	.....	.....	.....	3	.....	.....	4	8
Employees getting off train in motion.....	7	141	1	136	.....	98	3	160	1	210	12	745
Employees boarding train in motion.....	1	77	.....	91	.....	71	1	94	2	85	6	418
Run down by engine or cars at stations or in yards.....	14	63	17	62	2	63	15	44	23	50	87	282
Explosion of locomotive boiler.....	3	5	.....	.....	2	1	1	1	.....	.....	6	7
Totals.....	290	1,417	298	1,761	275	1,349	354	1,645	338	1,628	1,555	7,800

STATEMENT No. 12. — STATEMENT SHOWING HIGHWAY CROSSINGS AT WHICH IMPROVEMENTS HAVE BEEN EFFECTED AND THE NATURE OF SUCH IMPROVEMENT, DURING THE PERIOD OF TWELVE MONTHS ENDED DECEMBER 31st, 1948

File No.	Order No.	Location of Crossing	Railway	Conditions at Crossing and Improvements Effected	Date of Improvement
26711-535 27305-103		Lindsay, Russell St., Haliburton Sub., Mileage 0-46, Ont. Morden Station, 1st west of Station, Larriere Sub., Mileage 7-7, Ont.	C.N.R.	Approaches graded. (Pavement repaired)	Nov. 5, 1948
26711-872	68054	Grimby Sub., Mileage 2-84, Stanley Street, Ontario	C.P.R.	Approaches graded	Nov. 12, 1948
23262-86	68185	Victoria, Ontario St., Danville Sub., Mileage 55-5, Que.	C.N.R.	Two flashing light signals and one bell; formerly unprotected	Jan. 23, 1948
26715-86	68370	Aultsville, County Road, Cornwall Sub., Mileage 83-93, Ont.	C.N.R.	Two flashing light signals and one bell; formerly unprotected	May 4, 1948
26711-792	68629	Newton Sub., Mileage 29-24, Ontario	C.N.R.	Two flashing light signals and one bell; formerly unprotected	May 4, 1948
19435	68652	Edmonton, 107th Ave., Alberta	C.N.R.	Two flashing light signals and one bell; formerly unprotected	May 14, 1948
15725	68791	Mission, Hume Ave., Cascade Sub., Mileage 87, B.C.	C.P.R.	Two flashing light signals and one bell; formerly double bells	Jan. 23, 1948
26711-244	69147	London, Hochburg Ave., Dundas Sub., Mileage 75-63, Ont.	C.N.R.	Two flashing light signals and one bell; formerly unprotected	Mar. 8, 1948
26782-61	69264	St. Jerome, Briere St., Montfort Sub., Mileage 30-57, Que.	C.N.R.	Two flashing light signals and one bell; formerly unprotected	Mar. 27, 1948
26711-895	69177	Police Village of Appin, Road No. 2 (County) Ontario	C.N.R.	Two flashing light signals and one bell; formerly unprotected	Feb. 9, 1948
26744-164	69223	Winnipeg, Hartle Sub., and Stafford St., Man.	C.N.R.	Two flashing light signals and one bell; formerly unprotected	Apr. 30, 1948
45104	69221	St. Augustin, Montfort Sub., Mileage 16-04, Que.	C.N.R.	Two flashing light signals and one bell; formerly unprotected	July 5, 1948
26711-145	69423	Hamilton, Main St., & King William St., Ontario	C.N.R.	Two flashing light signals and one bell; formerly unprotected	Apr. 30, 1948
26711-640	69422	Welland Sub., Mileage 5-25 (Lundy's Lane) (Prov. Highway No. 20) Ontario	C.N.R.	Two flashing light signals and one bell. Also illuminated NO LEFT TURN signs. Formerly watchman.	Sept. 20, 1948
26765-257	69502	Oakville, Kerr St., Ontario	C.N.R.	Two flashing light signals and one bell; formerly unprotected	May 16, 1948
9437-198	69591	Belleville, Kerr St., Charles St., Oshawa Sub., Ontario	C.N.R.	Two flashing light signals and one bell; formerly unprotected	May 3, 1948
26744-6	69598	St. Jean Baptiste, Letellier Sub., Mileage 43-80, Man.	C.N.R.	Two flashing light signals and one bell; in lieu of wigwag	Mar. 19, 1948
27218-155	69613	Florence, Little Pond Rd., New Glasgow Sub., Mileage 81-37, N.S.	C.N.R.	Two flashing light signals and one bell; in lieu of wigwag	Sept. 13, 1948
27156-80	69638	Hudson Heights, M. & O. Sub., Mileage 10-03, Quebec	C.N.R.	Two flashing light signals and one bell; formerly unprotected	Apr. 9, 1948
26765-276	69640	Delhi, 2nd East of Highway No. 3, Cayuga Sub., Mileage 82-47, Ontario	C.N.R.	Two flashing light signals and one bell; formerly unprotected	Feb. 20, 1948
26782-6	69653	Jonquiere, St. Dominique St., Quebec	C.N.R.	Two flashing light signals and one bell; formerly bell and wigwag	July 19, 1948
33229-56	69974	Sable River, Highway No. 3, Yarmouth Sub., Mileage 27-90, N.S.	C.N.R.	Two flashing light signals and one bell; formerly unprotected	Nov. 18, 1948
33229-83	70202	Cook's Brook, Springhill Sub., Mileage 118-71, N.B.	C.N.R.	Two flashing light signals and one bell; formerly unprotected	June 21, 1948
9437-1102	70362	Moorefield, 1st South of the Station, Fergus Sub., Mileage 65-67, Ontario	C.N.R.	Two flashing light signals and one bell; formerly 2 automatic wigwags and bells	June 21, 1948
26711-245	70395	Oakville Station, ¼ mile East of Eighth Line Road, Oakville Sub., Mileage 20-55, Ontario	C.N.R.	Two flashing light signals and one bell; formerly unprotected	Dec. 6, 1948
30735	70438	Lakeview, ¼ mile East of Oakville Sub., Mileage 10-84, Ont.	C.N.R.	Two flashing light signals and one bell; formerly unprotected	July 21, 1948
26782-272	70501	Laprairie, 1st East of Station, Massena Sub., Mileage 13-08, Quebec	C.N.R.	Two flashing light signals and one bell; formerly unprotected	Oct. 28, 1948
13854	70513	London, Hale St., Dundas Sub., Mileage 75-35, Ontario	C.N.R.	Two flashing light signals and one bell; formerly unprotected	Sept. 10, 1948
10792	70565	Sarnia, just east of, Ontario	C.N.R.	Two flashing light signals and one bell; formerly bell	July 21, 1948
33229-165	70573	New Denmark Station, Grand Falls Sub., Mileage 64-34, N.B.	C.N.R.	Two flashing light signals and one bell; formerly unprotected	Nov. 29, 1948
26765-208	70662	Forest Sub., Mileage 68-8, London Rd., (Prov. Highway No. 1), Ontario	C.N.R.	Two flashing light signals and one bell; formerly unprotected	Aug. 10, 1948
27652-6	70739	West of Hadlow, St. Laurent St., Gibson's Crossing, Que.	C.N.R.	Two flashing light signals and one bell; formerly unprotected	Nov. 29, 1948
				Two flashing light signals and one bell; formerly unprotected	Nov. 18, 1948

26782-153	70743	Upton, Ste. Helene Street, Quebec.	C.N.R.	Two flashing light signals and one bell; formerly unprotected	Nov. 5, 1948
26711-674	70752	Lorneville, Mileage 14-95, Midland Sub., Ontario.	C.N.R.	Two flashing light signals and one bell; formerly unprotected	Dec. 15, 1948
9437-988	70837	Joliette, St. Charles Borromeo St., Quebec.	C.N.R.	Two flashing light signals and one bell; formerly one bell and danger sign.	Oct. 21, 1948
26711-503	71073	Near Onemee, Highway No. 7, Ontario.	C.N.R.	Two flashing light signals and one bell; formerly unprotected	Dec. 17, 1948
37647	71049	Glendyne Sub., Mileage 58-25, Route No. 51, Quebec.	C.N.R.	Two flashing light signals and one bell; formerly unprotected	Dec. 11, 1948
26782-416	71028	Plessisville, St. Nazaire St., Danville Sub., Mileage 40-5, Que.	C.N.R.	Three automatic light signals and one bell; formerly unprotected	Dec. 11, 1948
27073-133	69329	Pentiction, Main St., Carmi Sub., Mileage 133-1, B.C.	C.P.R.	Two flashing light signals and one bell; formerly unprotected	May 6, 1948
69473	69473	Covansville, South St., Newport Sub., Mileage 7-02, Que.	C.P.R.	Two flashing light signals and one bell; formerly unprotected	Feb. 9, 1948
27156-226	69486	Etebrooke Twp., Kipling Ave., Ontario.	C.P.R.	Flashing light signals and one bell; formerly unprotected	Feb. 13, 1948
26727-381	69732	North Bay Sub., Highway No. 94, Mileage 107-9, Ont.	C.P.R.	Two flashing light signals and one bell; formerly unprotected	May 7, 1948
26727-562	69894	Township of Head, Concession "A", Ontario.	C.P.R.	Two flashing light signals and one bell; formerly unprotected	May 7, 1948
38638	69879	Chesville, Main Street, Ontario.	C.P.R.	Two flashing light signals and one bell; formerly two wigwags and two bells	Mar. 12, 1948
9437-914	70270	Royal York Rd., Galt Sub., Mileage 7-70, Ontario.	C.P.R.	Two flashing light signals and one bell; formerly unprotected	May 25, 1948
26727-159	70341	Montreal, Cremazie Rd., Quebec.	C.P.R.	Two flashing light signals and one bell; formerly one bell and wigwag signals	May 17, 1948
9437-1338	70452	Lytton, just east of, Thompson Sub., Mileage 94-59, B.C.	C.P.R.	Two flashing light signals and one bell; formerly unprotected	Nov. 20, 1948
27073-39	70527	Dalhousie Mills Station, just West of, Winchester Sub., Mileage 41-66, Quebec.	C.P.R.	Two flashing light signals and two bells; formerly wigwag.	May 29, 1948
9437-801	70577	Port Burwell Sub., Mileage 32-67, Ontario.	C.P.R.	Two flashing light signals and one bell; formerly unprotected	Sept. 30, 1948
26727-584	70595	Port Burwell Sub., Mileage 22-6, (Highway No. 19), Ont.	C.P.R.	Two flashing light signals and one bell; formerly unprotected	Sept. 30, 1948
9437-1219	70586	Bills Bay Bridge, Metcalfe Rd., Sussex St. Sub., Mileage 1-29, Ontario.	C.P.R.	Two flashing light signals and one bell; formerly unprotected	Aug. 5, 1948
37642	70613	Scamons, South of, Okanagan Sub., Mileage 28-66, B.C.	C.P.R.	Two flashing light signals and one bell; formerly unprotected	Nov. 20, 1948
117021-11	70648	Fairville, Chertsey Ave. (formerly Milford Ave.), N.B.	C.P.R.	Two flashing light signals and one bell; formerly unprotected	Sept. 2, 1948
11025	70848	Merantio Sub., Mileage 3-35, Highway No. 34, Quebec.	C.P.R.	Two flashing light signals and one bell; formerly unprotected	Oct. 18, 1948
27156-127	70849	Merantio Sub., Mileage 2-9, Highway No. 34, Quebec.	C.P.R.	Two flashing light signals and one bell; formerly unprotected	Oct. 18, 1948
9437-185	71134	Guelph, Eramosa Road, Goderich Sub., Mileage 31-59, Ont.	C.P.R.	Two flashing light signals and one bell; formerly unprotected	Oct. 22, 1948
27156-39	70941	Bedford Station, 1st South, Stanbridge Sub., Mileage 11-6, Quebec.	C.P.R.	Two flashing light signals and one bell; formerly unprotected	Nov. 10, 1948
11738-127	71015	Princeton Sub., Mileage 70-25, B.C.	C.P.R.	Two flashing light signals and one bell installed. New crossing.	Nov. 26, 1948
44768	67822	Between Deschambault and St. Marc des Carriers, Lachetrotiere, La Tuque Sub., Mileage 36-91, Quebec.	C.P.R.	Two flashing light signals and one bell; formerly unprotected	July 4, 1947
35400-5	69124	Waterloo Sub., Mileage 9-4 (Provincial Highway No. 8), Ont.	G.R.R.	Two flashing light signals and one bell, and 2 NO LEFT TURN signs with flashing lights; formerly unprotected	Feb. 13, 1948
9437-698	69066	Fargo Station, between Concessions 1 and 2, west of Communication Road, Ontario.	M.C.R.	Two flashing light signals and 1 pedestrian bell; formerly unprotected	Mar. 11, 1948
9437-137	69555	Charing Cross, Town Line Road, Ontario.	M.C.R.	Two flashing light signals and one bell; formerly wigwag and bells	Jan. 19, 1948
27929-36	69615	Shedden Station, 1st East of, Ontario.	P.M.R.	Two flashing light signals and one bell; formerly bell and wigwag	Aug. 27, 1948
28529-18	69998	Crescent, Crescent Rd., Third Sub., Mileage 13-72, B.C.	G.N.R.	Two flashing light signals and one bell; formerly unprotected	Jan. 16, 1948
19313	70755	Victoria, Esquimalt Road, Victoria Sub., Mileage 0-94, B.C.	E. & N.	Two flashing light signals and one bell; formerly manually operated gates	Oct. 16, 1948
30099-6	70211	Levis, Jackman Road, Quebec.	Q.C.R.	Crossing re-located, old crossing closed. Two flashing light signals and one bell installed	July 26, 1948
9437-931	70098	Niagara Falls, Clifton Road Crossing, Ontario.	N.Y.C.	Three flashing light signals and two bells; formerly bell and wigwag	Oct. 16, 1948
26782-193	68808	St. Laurent, Monkland Blvd., Quebec.	C.N.R.	Four electrically-operated manually controlled gates; formerly watchtowers	May 15, 1948
9437-985	69917	Weston, King and John Streets, Ontario.	C.N.R.	Manually controlled electric gates with three lights on each gate arm and flashing light signals. Flashing light signals replace one bell	Mar. 17, 1948

332229-163	Middle Sackville, Tormentine Sub., Mileage 2-60, N.B.	C.N.R.	Trees trimmed on the land south west of crossing.	Oct. 9, 1948
267111-927	Alexandria Sub., Mileage 131-78, Ontario	C.N.R.	Brush cut down in the south east quarter	Oct. 20, 1948
44398	Leduc, 40th, Quebec	C.N.R.	Brush cut down	Oct. 29, 1948
332229-94	McGivney Station, 2nd East, Chipman Sub., Mileage 84-90, N.B.	C.N.R.	Brush and trees removed in three quadrants, N.E., N.W. & S.E.	Nov. 9, 1948
26727-588	Palgrave Station, Milton Sub., Mileage 50-9, Ontario	C.N.R.	Parts of bank removed to improve sight lines.	Dec. 11, 1948
28786-165	Municipal District of Wainwright No. 61, Alta.	C.N.R.	Trees and brush removed.	Dec. 14, 1948
27218-196	Murray Sln, 1st West, Mulgrave Sub., Mileage 3-04, N.S.	C.N.R.	Lumber which was piled near crossing removed.	Dec. 22, 1948
26782-419	St. Jean Chrysostome, 5th East, Arnaugh Sub., Mileage 97-93, Quebec.	C.N.R.	Snow fence hedges removed and other material in north west angle removed.	Dec. 22, 1948
332229-94	McGivney Station, 2nd East, Chipman Sub., Mileage 84-90, N.B.	C.N.R.	Bushes cut back for about 100 feet on highway from the right of way fence and about 300 feet along right of way fence on both sides of the track.	Dec. 31, 1948
27467-236	Normanton, Asquith Sub., Mileage 104, Sask.	C.N.R.	Protection fence erected.	Aug. 7, 1948
27811-139	Nisku, 1st South of Station, Leduc Sub., Mileage 84-18, Alta.	C.P.R.	Bush in Northeast and Southeast angles cut down.	Jan. 28, 1948
27811-140	Cranford, 1st West, Taber Sub., Mileage 87-09, Alta.	C.P.R.	Trees cut off about 4 feet above ground. Roots and brush removed.	June 14, 1948
26727-582	London, East of Clarke's Sideroad, Galt Sub., Mileage 110-5, Ont.	C.P.R.	Sight lines improved.	May 5, 1948
27073-152	Zincton, Kaslo Sub., Mileage 21-13, B.C.	C.P.R.	Brush obstructing view cleared.	May 31, 1948
27073-96	Coquitlam, Westminster Sub., Mileage 0-38, B.C.	C.P.R.	Poster board removed.	June 29, 1948
618-101	Nisku, 1 mile North, Leduc Sub., Mileage 85-1, Alta.	C.P.R.	Bushes in southeast angle of crossing removed.	Aug. 30, 1948
26727-69	Sand Point, 2nd west of Stn., Chalk River Sub., Mileage 46-07, Ont.	C.P.R.	Bush cut down and approaches improved.	July 26, 1948
27811-208	Conдор, 2nd West, Alberta Central Sub., Mileage 45-6, Alta.	C.P.R.	Bush cleared south east of crossing.	Aug. 30, 1948
27156-118	Petit Lac Magog, 1st West, Sherbrooke Sub., Mileage 77-6, Quebec.	C.P.R.	Trees and brush cut down.	Sept. 28, 1948
26727-568	Ingersoll, Mutual St., St. Thomas Sub., Mileage 8-75, Ont.	C.P.R.	Brush cut down.	Oct. 1, 1948
34534	Craddock, Coutts Sub., Mileage 4-99, Alta.	C.P.R.	Height of snow fence reduced to provide more adequate sight lines.	Dec. 9, 1948
34201	Coutts, Coutts Sub., Mileage 45-22, Alta.	C.P.R.	Snow fence removed.	Apr. 7, 1948
27365-183	Newdale Station, 1st West, Bradenbury Sub., Mileage 18-4, Man.	C.P.R.	Snow fence replaced by a slab type fence which can be removed during summer months.	Oct. 21, 1948
10758-13	Lloydminster Sub., Mileage 68-5, Sask.	C.P.R.	Sight lines improved in northeast and southeast corners.	Oct. 8, 1948
27811-207	Sting Sub., Mileage 99-1, Alta.	C.P.R.	Branches removed from four trees, close to track.	Nov. 5, 1948
27365-184	Nedlitz, 36-95, Man. North of, Winnipeg Beach Sub., Mileage 13-9, Man.	C.P.R.	Bush removed in northeast, northwest and southeast corners.	Nov. 19, 1948
27365-189	Winnipeg Beach Sub., Mileage 13-9, Man.	C.P.R.	Trees and brush in northeast angle of crossing removed.	Dec. 20, 1948
9437-1219	Billings Bridge, Metcalfe Road, Sussex Sub., Mileage 129, Ontario.	C.P.R.	Pole which obscured view of flashing light signal removed a distance of eight feet.	Dec. 31, 1948
30051-48	Burnaby Lake, 1st east of Station, Sperling Ave., B.C.	B.C.E.	Brush in northeast and northwest angles cleared.	Feb. 18, 1948
28300-55	Kingston Station, 1st West, Kentville Sub., Mileage 23-66, N.S.	D.A.R.	Evergreen hedge on the northeast angle of crossing trimmed to a height of 4 feet.	Feb. 9, 1948
35460-9	Speedville Shelter, Hespeler Sub., Mileage 2-5, Ont.	G.R.R.	Bush cut down.	May 26, 1948
27318-11	Bowley Shelter, just south of Highway No. 24, Port Dover to Galt Sub., Mileage 48, Ont.	L.E. & N.	Knoll in northwest angle of crossing removed.	Dec. 31, 1948
27231-26	Scanlans, Quaker Rd., Welland Sub., Mileage 13-70, Ont.	N.St.C. & T.	Weeds cut. Crossing sign repainted.	Aug. 31, 1948
39014	Between Kinuso and Faust, Slave Lake Sub., Mileage 195-6, Alta.	N.A.R.	Bush cut back southeast angle of crossing.	Feb. 27, 1948
26711-920	Meaford, Meaford Sub., Mileage 51-9, Ont.	C.N.R.	Return fencing repaired.	Feb. 3, 1948
26744-132	Minaki Sub., Mileage 119-5, Man.	C.N.R.	Protection fences repaired.	Mar. 29, 1948

STATEMENT No. 12. — STATEMENT SHOWING HIGHWAY CROSSINGS AT WHICH IMPROVEMENTS HAVE BEEN EFFECTED AND THE NATURE OF SUCH IMPROVEMENT, DURING THE PERIOD OF TWELVE MONTHS ENDED DECEMBER 31st, 1948 (*cont.*)

File No.	Order No.	Location of Crossing	Railway	Conditions at Crossing and Improvements Effected	Date of Improvement
26782-186		Joliette, 2nd east, Grand'Mere Sub., Mileage 78-77, Que.	C.N.R.	Advance warning sign erected.	Feb. 26, 1948
33550-67		Millview, 1st south of Passenger Shelter, Vernon Sub., Mileage 2-27, P.E.I.	C.N.R.	Advance warning signs erected.	Feb. 28, 1948
27218-196		Murray, 1st west of station, Mulgrave Sub., Mileage 3-04, Ont.	C.N.R.	Advance warning sign erected.	Apr. 5, 1948
26765-38		Ingersoll, Mutual St., Mileage 58-72, Ont.	C.N.R.	Advance warning sign erected.	June 18, 1948
26711-95		Markham, 1st east, Main St., Uxbridge Sub., Mileage 47, Ont.	C.N.R.	Advance warning signs erected.	Aug. 11, 1948
26711-928		Bala Sub., Mileage 26, Ont.	C.N.R.	Advance warning signs erected.	Aug. 11, 1948
33229-165		New Denmark Station, Grand Falls Sub., Mileage 64-3, N.B.	C.N.R.	Advance warning signs erected.	Sept. 11, 1948
26711-740	70573	Moulinette, 1st east of Station, Ont.	C.N.R.	Advance warning signs repainted and re-lettered.	Sept. 20, 1948
26711-896		Kincardine, 2½ miles South, Kincardine Sub., Mileage 55-50, Ontario	C.N.R.	Advance warning sign to south re-located to the grade inroad. Both signs reflectorized.	Oct. 22, 1948
Inv. 48012		Burns Lake, Telkwa Sub., Mileage 34-98, B.C.	C.N.R.	Private crossing signs erected.	Dec. 13, 1948
26782-354		Little Lake d'Or, Sydney Sub., Mileage 79-87, N.S.	C.N.R.	Private crossing signs erected.	Dec. 23, 1948
26782-68		Cantic Station, 1st West, Alexandria Sub., Mileage 9-85, Que.	C.N.R.	Standard crossing signs erected.	Feb. 9, 1948
26782-397		Cantic, Alexandria Sub., Mileage 9-98, Que.	C.N.R.	Standard crossing signs erected.	Feb. 9, 1948
26782-396		Lindsay, Rouses Point Sub., Mileage 42-04, Que.	C.N.R.	Standard crossing signs erected.	Feb. 9, 1948
G. 4940-5		Lindsay, Victoria Avenue, Ont.	C.N.R.	Two standard crossing signs erected.	Nov. 4, 1948
26711-945		Brantford, Jex St., Burford Sub., Ont.	C.N.R.	Standard crossing sign erected.	Dec. 17, 1948
26711-271		Uptergrove, 1st East of Station, Midland Sub., Mileage 37-97, Ont.	C.N.R.	Cross-buck sign erected.	Jan. 5, 1948
30213-68		Chilliweck, Young St., Yale Sub., Mileage 71-94, B.C.	C.N.R.	Two scotchligh reflectorized signs on both approaches. First sign signalling danger ahead; second railway crossing.	Dec. 22, 1948
26782-7		Manseau, 1st East of Station, Drummondville Sub., Mileage 52-7, Que.	C.N.R.	Stop signs erected.	Apr. 6, 1948
26782-416		Plessisville, Route No. 49, Que.	C.N.R.	Stop signs erected.	Aug. 9, 1948
26744-6		St. Jean Baptiste Station, Letellier Sub., Mileage 43-8, Man.	C.N.R.	Stop signs erected.	Nov. 17, 1948
26782-100		Baie St. Paul, Murray Bay Sub., Mileage 59-62, Que.	C.N.R.	Whistle posts erected.	Feb. 3, 1948
27073-153		Tadanaac, Aldridge Avenue, B.C.	C.N.R.	Advance warning signs erected on each side of crossing.	Feb. 12, 1948
34201		Coutts, 2nd West, Coutts Sub., Mileage 45-22, Alta.	C.P.R.	Spectrulte advance warning signs erected.	Mar. 24, 1948
27156-216		St. Joseph de Grantham, St. Leon St., Drummondville Sub., Mileage 58-3, Que.	C.P.R.	Advance warning signs erected.	Mar. 24, 1948
39799		St. Joseph de Grantham, Marcel St., Que.	C.P.R.	Advance warning signs erected.	Mar. 24, 1948
27156-212		Drummondville, 2nd South of Station, Drummondville Sub., Mileage 58-45, Que.	C.P.R.	Advance warning signs erected.	Mar. 24, 1948
27156-211		St. Joseph Blvd., Drummondville Sub., Mileage 58-56, Que.	C.P.R.	Advance warning signs erected.	Mar. 24, 1948
27156-120		Templeton, Lachute Sub., Mileage 109-73, Que.	C.P.R.	Reflectorized advance warning signs placed 500' north and south of crossing.	May 27, 1948
3564		Kingston Yard, Montreal St., Ont.	C.P.R.	Reflectorized advance warning signs erected.	June 16, 1948
26727-577		Dixie, ½ mile west, Galt Sub., Mileage 13-10, Ont.	C.P.R.	Reflectorized advance warning signs erected.	June 17, 1948
26727-96		Cochitum, 1st South of Station, Westminster Sub., Mileage 28, B.C.	C.P.R.	Reflectorized advance warning signs erected.	Jan. 3, 1948
26727-422		Chalk River Station, 1st west, North Bay Sub., Mileage 0-29, Ont.	C.P.R.	Reflectorized advance warning signs installed.	Nov. 1, 1948
26807-70		Weyburn, 3rd St., Portal Sub., Mileage 84-5, Sask.	C.P.R.	Advance warning signs erected.	Dec. 30, 1948
30762-350		Hillcrest, Crownest Sub., Mileage 84-05, Alta.	C.P.R.	Private crossing signs erected on both sides of crossing.	Sept. 24, 1948

45579 C-3935	Minto, Minto Sub., Mileage 33-5, N.B. South Edmonton, Whyte Avenue, Leduc Sub., Mileage 96-9, Alta.	C.P.R.	"No Trespass" signs erected.	Sept. 10, 1948
31304	Cap de la Madeleine, 1st north of Freight Shed, Que.	C.P.R.	Standard crossing signs replaced on both sides of crossing.	Jan. 21, 1948
39891	Leon Station, Ont.	C.P.R.	Standard crossing signs erected.	Mar. 8, 1948
C. 4940-5	Sudbury, Cedar St., Ont.	C.P.R.	Standard crossing sign moved to east side of crossing.	Jan. 26, 1948
24070	North Bay, Murray St., Cartier Sub., Mileage 0-44, Ont.	C.P.R.	Repairs to arm of standard crossing sign effected.	May 26, 1948
27365-20	Headingley, Glenboro Sub., Mileage 9-66, Man.	C.P.R.	Standard crossing sign erected.	Oct. 7, 1948
27467-97	Prince Albert, 6th Avenue, East of Tisdale Sub., Mileage 160-46, Sask.	C.P.R.	Additional standard crossing sign.	Oct. 29, 1948
27156-118	Petit Lac Magog, 1st West, Sherbrooke Sub., Mileage 77-6, Que.	C.P.R.	Stop sign erected.	Sept. 15, 1948
26807-70	Weyburn, 3rd St., Portal Sub., Mileage 84-5, Sask.	C.P.R.	Stop signs erected.	Oct. 25, 1948
26711-900	Hyde Park, 1-73 mile north, Exeter Sub., Mileage 1-73, Ont.	C.N.R.	Advance warning sign reflectorized.	Dec. 30, 1948
45107-1	Ste. Rose, 1st South of Stn., Mileage 60-25, Que.	Temiscouata	Advance warning sign of east side replaced. Stop signs on east and west angles replaced.	Feb. 5, 1948
17990-14	Sault Ste. Marie, Wellington St., Ont.	A.C. & H.B.	Reflectorized advance warning signs erected. Bushes in northwest angle cut down.	Mar. 10, 1948
31482-1	North Oshawa, Simcoe St., Ont.	O.E.R. (Oshawa)	Reflectorized advance warning signs erected on each side of crossing.	Sept. 29, 1948
Inv. 47872	Vancouver, Manitoba St., B.C.	B.C.E.	Stop signs erected. (Private crossing).	Apr. 23, 1948
30051-50	Vancouver, 5th Avenue, District No. 2, Marpole Line, B.C.	B.C.E.	Speed limitation of 10 miles an hour confirmed.	Dec. 15, 1948
30051-4	Vancouver, Fine St., B.C.	B.C.E.	Speed limitation of 10 miles an hour confirmed.	July 6, 1948
20571-162	Port Hope, Dorset St., Lakefield Sub., Mileage 0-45, Ont.	C.N.R.	Speed limitation of 10 miles an hour confirmed.	Aug. 3, 1948
26782-191	Drummondville, 1st West of Station, Drummondville Sub., Mileage 98-5, Que.	C.N.R.	Speed limitation of 10 miles an hour confirmed.	Jan. 25, 1948
			Train movements on the tracks which do not operate the bells and wigwags be flagged over the crossing by a member of the train crew.	Dec. 2, 1948

STATEMENT No. 13. — STATEMENT SHOWING THE NUMBER OF HIGHWAY CROSSINGS AT WHICH PROTECTION HAS BEEN COMPLETED AND THE NATURE OF PROTECTION, SET OUT BY PROVINCES, FOR THE TWELVE MONTHS ENDED DECEMBER 31st, 1948

	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia	Totals
Approaches graded.....					1	1		1		2
Two flashing light signals and one bell installed.....		2	3	18	33	1			7	65
Three flashing light signals and one bell installed.....				1		1				1
Three flashing light signals and two bells installed.....					1					1
Manually controlled electric gates installed.....				2	1			1		3
Additional set of flashing light signals installed.....					2					1
Electric lights on gate arms installed.....		2	1							2
Automatic bell and danger sign removed.....					1					1
Additional wigwag installed.....					1					1
Two illuminated signs, "No left turn" installed.....					1			1		1
Gates installed on both sides of crossing.....					1					1
City traffic lights.....										1
Public crossing constructed in lieu of private crossing.....				2	1		2			3
Highway diverted, new crossing constructed.....				1				1		3
New crossings constructed.....										1
Subway constructed.....					1					1
Removal of obstructions to view.....		3	5	6	19	3	3	9	3	51
Fencing repaired.....					1	1				2
Advance warning signs installed.....	1	1	1	7	10		1	1	3	25
Advance warning signs repainted and re-lettered.....					1					1
Private crossing signs installed.....		1	1					1	1	4
Standard crossing signs installed.....				4	6	1		1		12
Stop signs erected.....				3		1	2		1	7
Whistle posts erected.....				1						1
Speed limitations established.....					1					1
Train movements flagged on tracks which do not operate bells and wigwags.....				1					2	3
Totals.....	1	9	11	46	81	8	8	13	20	197

STATEMENT No. 16. — STATEMENT SHOWING HIGHWAY CROSSING ACCIDENTS WITH NUMBER OF PERSONS KILLED AND INJURED ON RAILWAYS FOR TEN-YEAR PERIOD ENDED
DECEMBER 31st, 1948

	Accidents	Killed	Injured
1939.....	243	102	348
1940.....	346	133	485
1941.....	380	137	521
1942.....	341	146	476
1943.....	301	111	439
1944.....	340	141	447
1945.....	382	131	617
1946.....	352	120	487
1947.....	442	162	638
1948.....	414	159	566
Totals.....	3,541	1,342	5,024

STATEMENT No. 17. — CONTRIBUTING FACTORS INVOLVED IN VARIOUS CLASSES OF CROSSING ACCIDENTS FOR YEAR 1948

	Accidents	Killed	Injured
<i>Motor Vehicles Struck by Train—</i>			
Daylight Hours.....	141	61	181
Night Hours.....	98	55	125
Total.....	239	116	306
<i>Horse-Drawn or Other Vehicles Struck by Train—</i>			
Daylight Hours.....	6	2	6
Night Hours.....	3	...	6
Total.....	9	2	12
<i>Pedestrians Struck by Train—</i>			
Daylight Hours.....	17	12	5
Night Hours.....	5	2	4
Total.....	22	14	9
<i>Motor Vehicles Ran Into Side of Train—</i>			
Daylight Hours.....	32	13	45
Night Hours.....	85	14	153
Total.....	117	27	198
<i>Accidents in which Track Cars Involved—</i>			
Daylight Hours.....	27	...	41
Total.....	27	...	41
<i>Total Number of Accidents—</i>			
Daylight Hours.....	223	88	278
Night Hours.....	191	71	288
Grand Total.....	414	159	566

Number of accidents which occurred at crossings protected by Gates.....	8
Number of accidents which occurred at crossings protected by Automatic Highway Traffic Signals.....	1
Number of accidents which occurred at crossings protected by Bell.....	6
Number of accidents which occurred at crossings protected by Bell and Wigwag.....	40
Number of accidents which occurred at crossings protected by Flashing Light Signals and Bells.....	10
Number of accidents which occurred at crossings protected by Watchman.....	7
Number of accidents which occurred at crossings unprotected.....	342
Total.....	414

STATEMENT No. 18. — HIGHWAY CROSSING ACCIDENTS FOR THE YEAR ENDED DECEMBER 31, 1948

Inv. File	Board File	Date	Time	Railway	Place	Killed	Injured	Protection	Class of Accident
46151	27218-193	Jan. 6	4.20 p.m.	C.N.R.	Chester Sd., Mileage 59.75, N.S.	..	2	Unprotected.	Auto truck.
46253	27218-195	Jan. 8	2.55 p.m.	C.N.R.	Liverpool, Wolfe Street, Yarmouth Sd., Mileage 0.89, N.S.	..	1	Unprotected.	Auto.
46311	27401-106	Jan. 22	5.40 p.m.	C.P.R.	West St. John, St. John St., West, St. John Sd., Mileage 3.04, N.B.	..	1	Unprotected.	Auto.
46308	36600-40	Jan. 30	10.10 a.m.	C.N.R.	St. Hyacinthe, Drummondville Sd., Mileage 126.8, Que.	..	1	Flash Light and Bell.	Auto truck.
46307	36600-40	Jan. 29	8.15 p.m.	C.N.R.	St. Hyacinthe, St. Hyacinthe Sd., Mileage 40.30, Que.	..	1	Flash Light and Bell.	Auto.
46130	20316-1	Jan. 1	5.42 a.m.	C.N.R.	Ville St. Pierre, Maple Ave., L'Assomption Sd., Mileage 46.5, Que.	..	1	Unprotected.	Auto.
46126	26782-195	Jan. 3	4.10 a.m.	C.N.R.	Iberville, 2nd Avenue, Lemoyne Sd., Mileage 0.68, Que.	..	1	Unprotected.	Auto.
46213	26782-212	Jan. 1	2.00 p.m.	C.N.R.	River Bleue, 1st West of Station, Glendyne Sd., Mileage 43-20, Que.	1	..	Unprotected.	Auto.
46300	27156-185	Jan. 23	5.55 p.m.	C.P.R.	Waterloo, Foster Square Crossing, Drummondville Sd., Mileage 16, Que.	..	1	Unprotected.	Auto.
46245	9437-972	Jan. 11	2.20 a.m.	C.P.R.	Lachute, Main Street, Lachute Sd., Mileage 44.52, Que.	..	2	Unprotected.	Auto Taxi.
46245	27156-18	Jan. 8	11.50 a.m.	C.P.R.	South R. Tooton, St. Amundville Sd., Mileage 28.5, Que.	..	6	Unprotected.	Auto.
46246	31320-4	Jan. 8	8.00 a.m.	C.N.R.	Des Rivières, Amundville Sd., Mileage 15.86, Que.	..	4	Unprotected.	Auto truck.
46340	9437-102	Jan. 28	2.30 p.m.	C.N.R.	Toronto, Wabine Ave., Oshawa Sd., Mileage 329.22, Ont.	..	..	Gates.	Auto.
46331	Case 2785	Jan. 24	12.15 p.m.	C.N.R.	Peterboro, Reid St., Campbellford Sd., Mileage 64.03, Ont.	..	3	Single Bell and Wig-wag.	Auto.
46241	26765-259	Jan. 10	11.41 a.m.	C.N.R.	Welland, Ontario Road, Welland Sd., Mileage 14.91, Ont.	..	1	Flash Light and Bell.	Auto truck.
46315	26711-28	Jan. 4	1.05 a.m.	C.N.R.	Fort Frances, First East of Station, Fort Frances Sd., Mileage 88.9, Ont.	..	2	Unprotected.	Auto.
46345	9437-833	Jan. 30	7.09 p.m.	C.N.R.	Graham Bay Station, 1st West, Renfrew Sd., Mileage 8.4, Ont.	..	1	Unprotected.	Moving van.
46343	43932	Jan. 28	11.30 p.m.	C.N.R.	Ottawa, Smith Side Road, Hurdman's Sd., Mileage 1.72, Ont.	..	2	Unprotected.	Auto Taxi.
46354	45412	Jan. 28	22.40 K	C.N.R.	Fort William, Vickers Street, Ont.	..	2	Unprotected.	Auto.
46318	9437-1131	Jan. 24	4.35 p.m.	C.P.R.	Fergus Station, 4th East, St. David Street, Elora Sd., Mileage 26.4, Ont.	..	1	Unprotected.	Auto.
46357	3564	Jan. 21	5.35 p.m.	C.P.R.	Kingston Yard, Montreal St., crossing, Ont.	..	1	Unprotected.	Auto.
46381	26727-583	Jan. 19	1.40 p.m.	C.P.R.	Mayhew, Chalk River Sd., Mileage 55.86, Ont.	..	1	Unprotected.	Auto truck.
46333	27802-15	Jan. 30	3.02 p.m.	T.H. & B.	Hamilton, King St., Belt Line Sd., Ont.	..	1	Double Bell and Wig-wags.	Auto.
46131	26842-63	Jan. 4	11.46 a.m.	M.C.R.	Canfield Junction, 3½ miles East, Main Line Sd., Mileage 35.52, Ont.	..	1	Double Bell and Wig-wags.	Auto.
46272	26744-132	Jan. 27	11.33 a.m.	C.N.R.	Minaki Sd., Mileage 119.5, Man.	2	..	Unprotected.	Auto.
46275	27156-203	Jan. 19	4.47 p.m.	C.P.R.	St. Claude, 1st West of Station, Glenboro Sd., Mileage 57.52, Man.	..	1	Unprotected.	Auto.
46252	27365-51	Jan. 11	5.00 a.m.	C.P.R.	Kirkella Station, 1st West, Broadview Sd., Mileage 71.2, Man.	..	3	Unprotected.	Auto.
46401	27467-16	Jan. 31	22.40 K	C.N.R.	Regina, 8th Ave., Regina Terminal Sd., Sask.	..	1	Unprotected.	Auto.
46250	27467-234	Jan. 14	8.10 p.m.	C.N.R.	Near Regina, Lewvan Sd., Mileage 111.75, Sask.	..	1	Unprotected.	Auto.
46251	35388	Jan. 13	5.34 p.m.	C.N.R.	Melville, 2nd West of Station, Touchwood Sd., Mileage 1-12, Sask.	..	4	Unprotected.	Horse-drawn vehicle.
46325	26807-202	Jan. 12	7.48 a.m.	C.P.R.	Slavador, 2nd North, Macklin Sd., Mileage 24.4, Sask.	..	1	Unprotected.	Auto.

46232	26807-121	Jan. 1	1 41 a.m.	C.P.R.	Antelope, 1st East of Station, Maple Creek Sd., Mileage 27-1, Sask.	3	1	Unprotected.	Auto.
46314	26807-163	Jan. 16	6 46 p.m.	C.P.R.	Meath Park, 1st West of Station, White Fox Sd., Mileage 63-20, Sask.	..	1	Unprotected.	Horse-drawn vehicle.
46301	2878-125	Jan. 20	6 50 a.m.	C.N.R.	Edmonton, 97th St., between 126th and 127th Avenues, Edmonton Terminal Sd., Mileage 2-16, Alta.	..	1	Unprotected.	Auto truck.
46383	27811-206	Dec. 14	23.10 K	C.P.R.	South Edmonton, 83rd Ave., Leduc Sd., Mileage 97-1, Alta.	..	1	Unprotected.	Auto.
46260	34201	Jan. 8	12.10 a.m.	C.P.R.	Coutts Station, 2nd West, Coutts Sd., Mileage 45-22, Alta.	..	1	Unprotected.	Auto truck.
46302	27811-205	Jan. 13	9 25 a.m.	C.P.R.	Bentley Station, 2nd North, Hoadley Sd., Mileage 16-9, Alta.	..	1	Unprotected.	Auto Taxi.
46407	39014-17	Jan. 31	16 45 K	N.A.R.	Faust Station, 3-5 miles East, Slave Lake Sd., Mileage 195-45, Alta.	..	3	Unprotected.	Auto.
46293	9437-1060	Jan. 14	4 05 a.m.	C.P.R.	Hammond Station, 1st East, Cascade Sd., Mileage 105-06, B.C.	..	1	Single Bell.	Motorcycle.
46344	27073-15	Jan. 17	23.20 K	C.P.R.	Kamloops Station, 1st East, Shuswap Sd., Mileage 128-41, B.C.	..	1	Unprotected.	Auto.
46510	27218-196	Feb. 25	5 25 p.m.	C.N.R.	Murray, Mulgrave Sd., Mileage 3-4, N.S.	..	1	Unprotected.	Auto.
46421	9437-323	Feb. 17	10 52 a.m.	C.N.R.	Valois, Valois Ave., Cornwall Sd., Mileage 12-76, Que.	..	1	Unprotected.	Auto.
46423	26782-193	Feb. 15	5 33 a.m.	C.N.R.	St. Laurent, Monkland Blvd., L'Assomption Sd., Mileage 41-05, Que.	1	..	Bel and Wigwag.	Auto.
46559	26782-396	Feb. 28	3 05 a.m.	C.N.R.	Candic, 1st North of Station, Rouens Point Sd., Mileage 42-04, Que.	..	1	Watchman.	Auto.
46430	2342-49	Feb. 21	6 20 p.m.	C.N.R.	Montreal South, LaSalle St., Sorel Sd., Mileage 1-3, Que.	..	5	Unprotected.	Auto.
46421	26765-135	Feb. 4	3 05 p.m.	C.N.R.	LaCocle, Alexandria Sd., Mileage 11-26, Que.	1	1	Unprotected.	Auto.
46420	2342-110	Feb. 6	7 32 p.m.	C.N.R.	Monkland Station, 1st North, Mount Royal Sd., Mileage 6-78, Que.	..	1	Unprotected.	Auto.
46506	26782-40	Feb. 18	8 05 a.m.	C.N.R.	Crabro, Station, 2nd East, L'Assomption Sd., Mileage 4-02, Que.	..	1	Unprotected.	Auto.
46555	27156-40	Feb. 21	6 20 p.m.	C.P.R.	Marie de L'Incarnation St., crossing, Quebec Sd., Mileage 158, Quebec.	3	2	Unprotected.	Auto truck.
46422	27156-183	Feb. 9	7 00 p.m.	C.P.R.	St. Lin, Junction, 1st North, Ste. Agathe Sd., Mileage 1-99, Que.	..	2	Bel and Wigwag.	Auto.
46393	20711-830	Feb. 6	1 43 p.m.	C.N.R.	Tecumseh, 2-54 miles West, Lauson Road, Chatham Sd., Mileage 101-72, Ont.	..	1	Unprotected.	Auto truck.
46572	26711-600	Feb. 19	11 55 a.m.	C.N.R.	Renfrew, Raglan St., Renfrew Sd., Mileage 53-93, Ont.	1	..	Unprotected.	Pedestrian.
46429	26711-184	Feb. 1	7 40 p.m.	C.N.R.	Stamford, 2nd East, Welland Sd., Mileage 1-21, Ont.	1	3	Bel and Wigwag.	Auto.
46526	9437-964	Feb. 8	10 17 p.m.	C.N.R.	Hanover, South of County Line Crossing, Owen Sound Sd., Mileage 25-83, Ont.	..	2	Unprotected.	Auto.
46396	26711-589	Feb. 14	9 15 p.m.	C.N.R.	Ottawa, Russel Road, Alexandria Sd., Mileage 132-4, Ont.	..	3	Unprotected.	Auto.
46440	26765-257	Feb. 13	11 52 p.m.	C.N.R.	Oakville, Kerr St., Oakville Sd., Mileage 21-95, Ont.	..	3	Unprotected.	Auto.
46457	26711-666	Feb. 2	8 25 p.m.	C.N.R.	Garsion Junction, North of, Sudbury Sd., Mileage 115-7, Ont.	..	2	Unprotected.	Auto.
46509	26711-925	Feb. 20	9 10 a.m.	C.N.R.	Stony Creek, 3rd East, Grimsby Sd., Mileage 35-87, Ont.	..	1	Unprotected.	Auto Taxi.
46571	9437-1219	Feb. 27	8 15 p.m.	C.P.R.	Mountain, Winchester Sd., Mileage 95-8, Ont.	2	2	Unprotected.	Auto.
46507	9437-1219	Feb. 22	11 13 p.m.	C.P.R.	Billings, Bridge, Metcalfe Road, Sussex St. Sd., Mileage 1-29, Ont.	..	..	Bel and Wigwag.	Auto.
46475	9437-478	Feb. 21	4 05 a.m.	C.P.R.	Claremont Station, 1st West, Brock Road, Peterboro Sd., Mileage 72-56, Ont.	..	2	Unprotected.	Auto.
46487	9437-938	Feb. 7	7 00 p.m.	C.P.R.	Tilsonburg, Tillson Ave., Port Burwell Sd., Mileage 15-40, Ont.	..	1	Unprotected.	Auto.
46523	35460-15	Feb. 4	8 40 p.m.	G.R.P.	Preston, Laurel St., Waterloo Sd., Ont.	..	1	Unprotected.	Auto.
46492	27318	Feb. 15	11 52 a.m.	L.E. & N.	Cherry Valley Shelter, South of, Port Dover to Galt Sd., Mileage 38-2, Ont.	..	1	Unprotected.	Auto.
46522	26711-291	Feb. 4	9 50 a.m.	N.St.C. & T.	Thorold, Fine St., Welland Sd., Mileage 5-40, Ont.	..	2	Unprotected.	Auto.
46394	27929-49	Feb. 4	3 00 p.m.	P.M.R.	Bienheim, Chatham St., St. Thomas & Walkerville Sd., Mileage 74-80, Ont.	..	1	Unprotected.	Auto truck.

STATEMENT No. 18. — HIGHWAY CROSSING ACCIDENTS FOR THE YEAR ENDED DECEMBER 31, 1948 (cont.)

Inv. File	Board File	Date	Time	Railway	Place	Killed	Injured	Protection	Class of Accident
46334	27802-42	Feb. 2	9.40 a.m.	T.H. & B.	West Hamilton, Leland St., Watford Rd., Mileage 40-49, Ont.	1		Unprotected.	Auto.
46385	37572	Feb. 11	8.56 a.m.	C.P.R.	La Riviere St., Mileage 3-4, Man.		1	Unprotected.	Auto.
46489	28786-94	Feb. 26	8.40 a.m.	C.N.R.	Edmonton, Calder Yard, Edmonton Terminal St., Mileage 1-45, Alta.		3	Unprotected.	Auto.
46441	28786-164	Feb. 20	1.55 a.m.	C.N.R.	Edmonton, Stony Plain Road, Edmonton Terminal St., Alta.		1	Unprotected.	Auto.
46384	14926	Feb. 7	7.40 p.m.	C.P.R.	Coleman Station, 1st East, Crownsnest St., Mileage 91-56, Alta.		2	Unprotected.	Auto.
46411	39014-16	Feb. 9	9.05 a.m.	N.A.R.	Smith Station, 1st East, Edmonton St., Mileage 130-4, Alta.			Unprotected.	Auto.
46542	30213-31	Feb. 13	9.25 K	C.P.R.	Vernon, Okanagan St., Mileage 46-2, B.C.		1	Unprotected.	Auto.
46370	30051-41	Feb. 1	13.15 K	B.C.E.	Vancouver, 33rd Ave., Lulu Island District No. 2 Sd., B.C.		1	Unprotected.	Auto.
46564	28844	Feb. 23	10.35 K	B.C.E.	Vancouver, Heather St., B.C.		2	Unprotected.	Lumber carrier.
46549	37830-12	Mar. 2	7.30 p.m.	S. & L.	Glace Bay, Brookside St., N.S.		1	Unprotected.	Auto Taxi.
46601	33229-29	Mar. 19	2.03 a.m.	C.N.R.	Memramcook, 1st West of Station, Springhill St., Mileage 105-51, N.B.	2		Bell and Wigwag.	Auto.
46573	9437-1287	Mar. 14	1.50 a.m.	C.P.R.	Magog, Lake St., Sherbrooke St., Mileage 86-8, Que.		2	Unprotected.	Auto.
46546	19267	Mar. 3	1.09 a.m.	C.N.R.	London, Rectory St., Dundas St., Mileage 76-84, Ont.		3	Gates.	Auto.
46637	8154	Mar. 30	11.50 a.m.	C.N.R.	Welland, East Main St., Dundas St., Mileage 13-61, Ont.		1	Gates.	Pedestrian.
46980	9437-1183	Mar. 27	12.24 p.m.	C.N.R.	Peterboro, Monaghan Road, Ontario St., Mileage 13-10, Ont.		1	Bell.	Auto.
46631	9437-178	Mar. 29	3.08 p.m.	C.N.R.	Port Credit, Stavebank Road, Oakville St., Mileage 13-10, Ont.	2		Bell and Wigwag.	Auto.
46635	9437-214	Mar. 28	12.37 a.m.	C.N.R.	Newmarket, Huron St., Newmarket St., Mileage 34-1, Ont.		1	Bell and Wigwag.	Auto.
46515	26711-894	Mar. 5	12.04 p.m.	C.N.R.	London, Egerton St., Thorndale St., Mileage 31-03, Ont.		1	Flash Light Signal and Bell.	Auto.
46573	9437-552	Mar. 7	2.15 a.m.	C.N.R.	London, Egerton St., Dundas St., Mileage 76-44, Ont.		1	Watchman.	Auto.
46679	26711-503	Mar. 6	1.30 a.m.	C.N.R.	Campbellford St., Mileage 73-90, Highway No. 7, Ont.	1	5	Unprotected.	Auto.
46636	26711-926	Mar. 15	8.32 p.m.	C.N.R.	Shanty Bay Station, 1st North, Newmarket St., Mileage 70-5, Ont.		1	Unprotected.	Auto truck.
46565	9437-1063	Mar. 10	12.05 p.m.	C.P.R.	Brighton, Prince Edward St., Oshawa St., Mileage 9-9, Ont.		1	Bell and Wigwag.	Pedestrian.
46632	9437-80	Mar. 28	9.52 a.m.	C.P.R.	Weston, Dennison Ave., MacTier St., Mileage 3, Ont.	1	1	Bell and Wigwag.	Horse-drawn vehicle.
46586	26727-440	Mar. 8	9.15 a.m.	C.P.R.	Hanover, Durham Road, Highway No. 4, Walkerton St., Mileage 32-85, Ont.		1	Unprotected.	Auto.
46606	26727-455	Mar. 24	7.20 a.m.	C.P.R.	Walkerville Junction, 1st East, Pilette Road, Windsor St., Mileage 106-80, Ont.		1	Unprotected.	Auto truck.
46600	27156-275	Mar. 29	5.00 p.m.	C.P.R.	Pendleton, 2 miles East of, M. & O. St., Mileage 54-3, Ont.		1	Unprotected.	Auto truck.
46744	36176-4	Mar. 29	11.05 a.m.	A.C. & H.B.	Northland, Soo St., Mileage 23-14, Ont.		1	Unprotected.	Auto.
46550	35460-9	Mar. 9	3.10 p.m.	G.R.R.	Speedville Shelter, East of, Hespeler St., Mileage 2-5, Ont.		1	Unprotected.	Auto.
46597	26744-45	Mar. 21	12.50 a.m.	C.N.R.	Brandon, 2nd South of Depot, Pleasant Point St., Mileage 79-02, Man.		1	Unprotected.	Auto.
46511	34135	Mar. 4	6.10 a.m.	C.N.R.	Winnipeg, Water Ave., Winnipeg Terminal St., Man.		1	Unprotected.	Horse-drawn vehicle.
46585	27467-242	Mar. 8	11.15 p.m.	C.N.R.	North Battleford, 2nd crossing on Railway Ave., East of Station, Langham St., Mileage 82-4, Sask.		3	Unprotected.	Auto.

	Mar. 5	4:57 p.m.	C.P.R.	Yorkton, 2nd East of Station, Wynyard St., Mileage 26-22 Sask.	1	Unprotected Gates	Auto truck.
46608	2634	21:20 K	C.P.R.	Calgary, 4th St., West, Alta.	1	Unprotected	Auto.
46706	27811-130	10:00 a.m.	C.P.R.	Langdon Station, 1st West, Strathmore St., Mileage 34-9, Alta.	2	Unprotected	Auto.
46562	27073-22	6:23 a.m.	E. & N.	Albany Station, 1st West, Port Alberni St., Mileage 36-9, B.C.	1	Unprotected	Auto.
46693	27073-154	14:00 K	C.P.R.	Rossland, Rossland St., Mileage 29-3, B.C.	1	Unprotected	Auto.
46761	26782-417	10:40 a.m.	C.P.R.	St. Constant, 1st North, Massena St., Mileage 18-51, Que.	1	Unprotected	Horse-drawn sleigh.
46758	26782-400	9:05 p.m.	C.N.R.	Waterville, 1st West, Sherbrooke St., Mileage 37-17, Que.	1	Unprotected	Auto.
46674	36500-31	2:50 a.m.	C.N.R.	St. Laurent, L'Assomption St., Mileage 41-71, Que.	2	Flash Light Signal	Auto.
46852	27082-15	7:15 a.m.	C.N.R.	Charney, Poirier St., Bridge St., Mileage 0-6, Que.	1	Unprotected	Auto.
46857	27167-24	3:05 p.m.	C.P.R.	Drummondville, Dominion Silk Coy's Spur, Drummondville St., Mileage 0-10, Que.	1	Unprotected	Motorcycle.
46763	27156-286	7:59 p.m.	C.P.R.	Lachute, Lachute St., Mileage 46-11, Que.	3	Unprotected	Auto.
46760	27156-118	6:15 p.m.	C.P.R.	Petit Lac Magog, 1st West, Sherbrooke St., Mileage 77-6, Que.	1	Unprotected	Pedestrian.
46750	26765-238	12:15 a.m.	C.N.R.	Marshall, 2nd East, Highway No. 3A, Cayuga St., Mileage 24-63, Ont.	3	Unprotected	Auto.
46869	26765-140	8:40 p.m.	C.N.R.	Milton, Martin St., Milton St., Mileage 14-5, Ont.	3	Unprotected	Auto.
46854	26711-492	10:05 p.m.	C.N.R.	Humberstone St., Mileage 1-09, Highway No. 3, Ont.	1	Unprotected	Auto.
46835	9437-174	3:10 a.m.	C.N.R.	Aldershot, Watdown Road, Oakville St., Mileage 34-75, Ont.	1	Flash Light Signal and Bell	Auto.
46831	26727-412	3:20 p.m.	C.P.R.	Clark Stn. Shelter, 1st South, Brockville St., Mileage 21-17, Ont.	1	Unprotected	Auto.
46675	26727-54	2:34 a.m.	C.P.R.	Windsor, Howard Ave., Highway No. 2, Windsor St., Mileage 109-7, Ont.	1	Unprotected	Auto.
46747	26727-423	10:06 p.m.	C.P.R.	Sudbury, Regent St., Corner St., Mileage 80-15, Ont.	1	Bell and Wigwag	Auto truck.
46762	26727-72	2:55 a.m.	C.P.R.	Vernor Stn., 1st West, Carleton St., Mileage 33-7, Ont.	2	Unprotected	Auto truck.
46725	20961	8:10 p.m.	T.H. & B.	Coyne, just East, Highway No. 3A, Welland St., Mileage 1-10, Ont.	2	Double Bell and Wigwags	Auto.
46708	27811-188	1:30 a.m.	C.P.R.	Leduc Stn., 1st North, Leduc St., Mileage 79-1, Alta.	1	Unprotected	Auto.
46814	27811-190	9:15 a.m.	C.P.R.	Wetaskiwin, 1st North, Leduc St., Mileage 68-4, Alta.	1	Unprotected	Auto.
46834	27073-24	22:10 K	C.P.R.	Coquitlam, Shaughnessy St., Cascade St., Mileage 112-2, B.C.	2	Unprotected	Road Grader.
46894	27073-155	9:00 K	C.P.R.	Cranbrook, Cranbrook St., Mileage 98-36, B.C.	2	Unprotected	Auto.
46867	30031-49	9:48 a.m.	B.C.E.	Vancouver, Kaslo St., B.C.	3	Unprotected	Auto truck.
46953	26782-418	7:43 a.m.	C.N.R.	Howick, Massena St., Mileage 35-62, Highway No. 4, Que.	1	Unprotected	Auto.
46952	30747-3	7:15 p.m.	N.J.R.	Lacelle, 1st South of, Mileage 5-18, Delson's Rouses Point Line, Que.	1	Unprotected	Pedestrian.
46992	19093	1:00 a.m.	C.N.R.	West Toronto Yd., Peele St., Brampton St., Ont.	2	Unprotected	Auto.
46841	26711-930	10:50 a.m.	C.N.R.	Canfield, 1-55 miles West of, Dunnville St., Mileage 47-78, Town Line Road, Ont.	1	Watchman	Auto.
46856	26711-490	11:32 p.m.	C.N.R.	Toronto, Toronto Terms. St., Fleet St. at Bathurst St., Ont.	1	Unprotected	Auto.
46904	26705-38	5:49 p.m.	C.N.R.	Ingersoll, Dundas St., Mileage 58-72, Mutual St., Ont.	1	Unprotected	Auto.
46922	26711-931	5:53 a.m.	C.N.R.	Walkley Road, (near Ottawa), Ottawa Terminal St., Mileage 4-26, Ont.	1	Unprotected	Auto.
46839	9437-283	10:30 a.m.	C.P.R.	Chatham, Windsor St., Mileage 64-3, Wellington St., Ont.	1	Double Bell and Wigwags	Auto truck.
46962	26727-69	9:30 p.m.	C.P.R.	Sand Point, 2nd West of, Chalk River St., Mileage 46-07, Ont.	1	Unprotected	Auto.
46963	26727-332	12:15 p.m.	C.P.R.	Indian River, 1st West of Stn., Peterboro St., Mileage 14-39, Ont.	1	Unprotected	Auto.
46878	26727-568	2:13 p.m.	C.P.R.	Ingersoll, St. Thomas St., Mileage 8-75, Mutual St., Ont.	1	Unprotected	Auto truck.

STATEMENT No. 18. — HIGHWAY CROSSING ACCIDENTS FOR THE YEAR ENDED DECEMBER 31, 1948 (cont.)

Inv. File	Board File	Date	Time	Railway	Place	Killed	Injured	Protection	Class of Accident
46991	9437-883	May 25	10.30 a.m.	C.P.R.	Walton, Goderich Rd., Mileage 87-66, Ont.	..	1	Unprotected	Auto.
47008	26727-555	May 27	5.10 p.m.	C.P.R.	Wawa, at East of Chalk River Rd., Mileage 36-65, Ont.	1	1	Unprotected	Auto.
47015	9437-840	May 31	4.38 p.m.	C.P.R.	Owen Sound St., Mileage 68-9, 8th St., Ont.	1	1	Unprotected	Auto.
47113	27318-11	May 30	6.32 p.m.	L.E. & N.	Bowby, Fort Dover St., Mileage 48, Ont.	..	3	Unprotected	Auto and trailer.
46900	4575	May 23	1.05 a.m.	M.C.R.	Rodney, Furnival Rd. (Main St., Highway No. 77), Main Line Rd., Mileage NF 145-05, Ont.	1	..	Double Bell and Wigwags.	Auto.
46840	27365-182	May 6	4.15 p.m.	C.P.R.	Franklin, 1st West of Stn., Minnedosa Rd., Mileage 70-3, Man.	..	1	Unprotected	Auto truck.
46908	27467-243	May 11	11.15 a.m.	C.N.R.	Porcupine Plain, 1st West, Chelani Rd., Mileage 29-66, Sask.	..	2	Unprotected	Horse-drawn wagon.
46918	27467-244	May 13	4.05 p.m.	C.N.R.	Prince Albert, 12th Ave. West, Duck Lake Rd., Mileage 87-03, Sask.	..	2	Unprotected	Auto.
47021	27467-203	May 26	14.15 K	C.N.R.	Qu'Appelle St., Mileage 91-5, Sask.	..	1	Unprotected	Auto truck.
46957	39014-18	May 21	19 K	N.A.R.	Donnelly's Stn., 1st East of Smoky Rd., Mileage 270-13, Alta.	..	1	Unprotected	Auto truck.
46935	30051-50	May 10	7.45 a.m.	B.C.E.	Vancouver, 5th Ave., at Fir St., District No. 2, Marpole Line, B.C.	..	1	Unprotected	Auto truck.
46942	34678	May 14	12.42 a.m.	B.C.E.	Vancouver, 29th Ave., District No. 2, Marpole Line, B.C.	..	1	Unprotected	Auto truck.
47082	27218-164	June 15	8.00 a.m.	C.N.R.	Haliburton, Oxford Rd., Mileage 66-85, 1st North of Brown Point Stn., N.S.	..	1	Unprotected	Auto.
47298	26782-37	June 20	9.10 p.m.	C.N.R.	La Tuque, St. Francois St., La Tuque Rd., Mileage 122-1, Que.	..	1	Unprotected	Auto.
47033	33993-5	June 21	6.55 p.m.	C.P.R.	Lakeside, 1st East of Stn., Winchester Rd., Mileage 7-90 (Coolbreeze Ave.), Que.	1	5	Bell and Wigwag.	Auto truck.
47172	20262	June 29	3.05 a.m.	C.P.R.	Adirondack Rd., Mileage 43-44, Metropolitan Blvd. at Dominion Eng'g Crossing, Que.	..	1	Unprotected	Auto.
47186	13311	June 29	1.12 a.m.	C.P.R.	Megantic Rd., Mileage 2-3, Que.	2	..	Unprotected	Auto.
46974	12072-40	June 5	6.43 p.m.	M. & S.C.	Greenfield Park, Mileage 5 Suburban Div., Taschereau Blvd., Que.	4	5	Bell and Wigwag.	Auto.
47029	27270-15	June 6	7.15 p.m.	N.Y.C.	Woodlands, 1st North of St. Lawrence & Adirondack Div., Mileage 49-29, Que.	..	1	Unprotected	Auto.
47158	9437-1331	June 24	4.50 p.m.	C.N.R.	Baden, 2nd East of Stn., Brampton Rd., Mileage 72-39, Ont.	1	..	Bell and Wigwag.	Auto.
47049	26711-190	June 3	6.19 a.m.	C.N.R.	Thornbury, Mill St., Meaford Rd., Mileage 44-1, Ont.	..	1	Unprotected	Auto.
47013	26711-933	June 7	12.45 p.m.	C.N.R.	Mulbrook, 1st West of Stn., King St., Lakeside Rd., Mileage 18-24, Ont.	..	1	Unprotected	Auto.
47014	26711-932	June 10	7.15 a.m.	C.N.R.	Britannia Heights, Castleton City, Pinecrest Ave., Renfrew Rd., Mileage 7-6, Ont.	..	1	Unprotected	Auto.
47117	26711-934	June 19	6.15 p.m.	C.N.R.	Lakenfeld, Concession St., Lakeside Rd., Mileage 40-60, Ont.	..	1	Unprotected	Auto.
47130	26711-654	June 24	10.00 a.m.	C.N.R.	Vandori, 2nd North, Bala Rd., Mileage 32-94, Ont.	..	2	Unprotected	Motorcycle.
47118	26711-657	June 25	1.45 a.m.	C.N.R.	Harrowsmith, 1st East of Smiths Falls Rd., Mileage 84-95, Ont.	..	2	Unprotected	Auto.
47233	9437-970	June 26	2.50 p.m.	C.N.R.	Varnes, 1st North, Durham St., Mileage 22-84, Ont.	..	4	Unprotected	Auto.
47300	26713-836	June 28	8.45 K	C.N.R.	Fort William, Marks & Arthur Sts., Kashabowie Rd., Ont.	..	1	Unprotected	Bicycle.
47006	9437-281	June 1	5.55 a.m.	C.P.R.	Chatham, Adelaide St., Windsor St., Mileage 64-14, Ont.	..	1	Bell and Wigwags.	Auto.
47162	26727-64	June 22	9.13 a.m.	C.P.R.	Guelph, Elora Rd., Goderich Rd., Mileage 32-8, Ont.	..	2	Bell and Wigwags.	Auto.

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47075	26727-422	June 12	11:35 p.m.	C.P.R.	Chalk River, 1st West of Stn., Main St., North Bay Sub., Mileage 0-29, Ont.	1	Unprotected	Auto.
47080	26727-348	June 15	11:25 a.m.	C.P.R.	Drumbo, 1st East of, Dundas St., Mileage 73-75, Ont.	4	Unprotected	Auto.
47077	26727-163	June 17	6:30 p.m.	C.P.R.	Elmstead, 1st West of Stn., Windsor Sub., Mileage 101-1, Ont.	..	Unprotected	Pedestrian.
47081	26727-378	June 28	7:45 p.m.	C.P.R.	Ottawa West Stn., 1st West, Bayview Rd., Carleton Place Sub., Mileage 0-1, Ont.	1	Unprotected	Bicycle.
47105	35480-7	June 14	7:00 p.m.	G.R.R.	Kitchener, Glasgow St., Waterloo Sub., Mileage 14, Ont.	2	Unprotected	Auto.
47089	28690-10	June 18	10:00 p.m.	G.R.R.	Kitchener, Queen St., Waterloo Sub., Mileage 12-7, Ont.	1	Unprotected	Auto.
47038	26842-98	June 7	3:55 p.m.	M.C.R.	Niagara Falls, 6 miles west of, Fraser Rd., 1st West of Montrose Drawbridge, Main Line Sd., Mileage NF 6, Ont.	1	Double Bell and Wagon	Auto.
47150	26744-59	June 27	11:45 K	C.N.R.	Ashville, Highway No. 10, Togo St., Mileage 11-27, Man.	2	Unprotected	Auto.
47160	27467-245	June 21	16:35 K	C.N.R.	Cromer Sub., Mileage 115-23, Sask.	2	Unprotected	Auto.
47211	26807-204	June 25	2:35 K	C.P.R.	White Fox Sub., Mileage 9-5, Sask.	2	Unprotected	Auto.
47212	27073-156	June 18	8:43 a.m.	C.P.R.	Rock Creek, 1st West, Carmi Sub., Mileage 11-9, B.C.	1	Unprotected	Auto.
47161	11356-35	June 27	16:55 K	C.P.R.	Canalflat, Lake Windermere Sub., Mileage 64-1, B.C.	1	Unprotected	Auto.
47148	30051-4	June 18	18:04 K	B.C.E.	Vancouver, 6th & Pine, B.C.	2	Unprotected	Motorcycle.
47257	33229-167	July 14	5:15 p.m.	C.N.R.	Ste. Anne de Boccage, Crossing, Caraque Sub., Mileage 45-94, N.B.	1	Unprotected	Auto truck.
47328	9437-988	July 23	12:30 a.m.	C.N.R.	Joliette, St. Charles Boromee St., Grand Mere Sub., Mileage 79-12, Que.	..	Flashing Light Signal and Bell	Auto.
47247	26782-355	July 8	9:40 p.m.	C.N.R.	St. Philippe de Neri Stn., 1st East of, Montmagny Sub., Mileage 31-3, Que.	1	Unprotected	Auto.
47327	26782-419	July 28	12:25 p.m.	C.N.R.	St. Jean Baptiste, 3th East of, Armagh Sub., Mileage 97-93, Que.	2	Unprotected	Auto.
47248	27156-287	July 20	10:25 p.m.	C.P.R.	Thurso Stn., 1st East of, Lachute Sub., Mileage 90-46, Que.	..	Unprotected	Auto.
47277	9437-552	July 16	11:35 p.m.	C.N.R.	London, Egerton St., Dundas Sub., Mileage 76-44, Ont.	1	Unprotected	Auto.
47168	26711-844	July 8	2:36 p.m.	C.N.R.	Armour, Russell St., Renfrew Sub., Mileage 37-71, Ont.	1	Unprotected	Auto.
47400	26711-559	July 10	7:30 a.m.	C.N.R.	Deseronto Sub., Mileage 6-46, Highway No. 2, Ont.	1	Unprotected	Auto truck.
47307	26765-28	July 22	12:02 p.m.	C.N.R.	Gowansdown Stn., just East, Newton Sub., Mileage 91-06, Ont.	1	Unprotected	Auto.
47295	26711-935	July 13	9:05 a.m.	C.N.R.	Jackson's Sideroad, between Tilsonburg & Courtland, Cayuga Sub., Mileage 91-95, Ont.	..	Bell	Auto.
47317	26711-937	July 12	1:30 p.m.	C.N.R.	Drumbo, 1st East, Drumbo Sub., Mileage 7-29, Ont.	2	Unprotected	Auto truck.
47320	24545	July 26	6:50 a.m.	C.N.R.	Goldstone Stn., just North, Fergus Sub., Mileage 58-03, Ont.	..	Unprotected	Auto.
47345	24070	July 23	1:00 p.m.	C.P.R.	North Bay, Murray St., Carleton Place Sub., Ont.	1	Unprotected	Auto.
47346	27318-11	July 26	12:32 p.m.	L.E. & N.	Bowby, L.E. & N. Railway, Mileage 48, Ont.	1	Unprotected	Auto.
47275	26842-83	July 29	5:29 p.m.	M.C.R.	Welland, 1st East of WX Tower, Ontario Road, Main Line Sub., Mileage 16-76, Ont.	1	Unprotected	Auto.
47174	26842-56	July 2	11:35 p.m.	C. & O.R.	Blenheim Jct., 1/2 mile North, Highway No. 98, Sub. No. 2, Mileage 10-10, Ont.	..	Double Bell and Wagon	Auto.
47184	27231-26	July 19	7:25 p.m.	N.St.C. & T.	Scanlan's, Quaker Rd., Welland Sub., Mileage 13-70, Ont.	1	Unprotected	Auto.
47272	21020	July 25	12:55 a.m.	C.N.R.	St. Boniface, Transfer track from Paddington Yd. to Stock Yards, Dawson Rd., Winnipeg Terminals, Sub., Man.	4	Unprotected	Auto.
47292	822-1	July 26	12:00 Noon	C.P.R.	Haywood Stn., 1st East, Glenboro Sub., Mileage 50-64, Man.	1	Unprotected	Auto.
47225	27365-20	July 9	7:07 p.m.	C.P.R.	Headingley, 1st South of Passenger Shelter, Glenboro Sub., Mileage 9-66, Man.	1	Unprotected	Auto.
47202	27467-246	July 11	12:32 a.m.	C.N.R.	Saskatoon, 1st North of Lorne Ave., Saskatoon Sd., Mileage 1-3, Sask.	1	Unprotected	Auto.
47374	27467-97	July 31	8:45 K	C.N.R.	Prince Albert, 6th Ave. East, Tisdale Sub., Mileage 160-46, Sask.	1	Unprotected	Auto.

STATEMENT No. 18. — HIGHWAY CROSSING ACCIDENTS FOR THE YEAR ENDED DECEMBER 31, 1948 (cont.)

Inv. File	Board File	Date	Time	Railway	Place	Killed	Injured	Protection	Class of Accident
47293	14600	July 20	2.30 p.m.	C.P.R.	Whitewood, 1st West of Stn., Broadview Sub., Mileage 116-6, Sask.	1	..	Unprotected.	Wagon and team.
47394	9437-508	July 30	2.05 K	C.N.R.	Vermilion, 1st West of Stn., Vegreville Sub., Mileage 0-1, Alta.	..	1	Unprotected.	Auto.
47181	27811-207	July 12	1.49 p.m.	C.P.R.	Lexicon, 1-6 miles East, Stirling Sub., Mileage 99-1, Alta.	1	3	Unprotected.	Auto.
47180	34201	July 16	3.10 a.m.	C.P.R.	Coutts, 2nd West of Stn., Coutts Sub., Mileage 45-22, Alta.	..	1	Unprotected.	Auto.
47182	618-101	July 9	9.30 p.m.	C.P.R.	Nisku, 1 mile North, Leduc Sub., Mileage 85-1, Alta.	1	2	Unprotected.	Auto.
47393	27811-208	July 27	16.50 K	C.P.R.	Alberta Central Sub., Mileage 45-6, Alta.	..	1	Unprotected.	Auto.
47343	30558	July 28	10.00 a.m.	C.P.R.	New Westminster, Braid St., Westminster Sub., Mileage 5-9, B.C.	..	1	Unprotected.	Auto.
47330	92199	July 28	4.50 p.m.	C.P.R.	Endorby, 3rd North, Okanagan Sub., Mileage 22-71, B.C.	..	1	Unprotected.	Auto.
47404	30881	July 23	18.35 K	C.P.R.	Cranbrook, Cranbrook Sub., Mileage 98-9, B.C.	..	2	Unprotected.	Auto.
47331	30051-5	July 31	8.15 p.m.	B.C.E.	Branscombe, 1st South of Stn., Highway No. 9, District No. 2 Sub., B.C.	..	2	Unprotected.	Auto.
47483	27218-197	Aug. 10	8.10 a.m.	C.N.R.	Mabou Station, 2nd South, Inverness St., Mileage 44-60, N.S.	..	1	Unprotected.	Auto.
47302	27218-164	Aug. 4	5.55 p.m.	C.N.R.	Brown Point Station, 1st North, Haliburton Crossing, Oxford St., Mileage 66-85, N.S.	2	3	Unprotected.	Auto.
47301	43798	Aug. 8	6.15 p.m.	C.N.R.	July Station, 1st West, Drummondville St., Mileage 33-67, Que.	1	6	Unprotected.	Pedestrian.
47397	26782-420	Aug. 24	5.20 p.m.	C.N.R.	Longueuil, Queen Blvd., Sorel St., Mileage 2-3, Que.	..	1	Unprotected.	Auto.
47389	30762-325	Aug. 8	8.52 p.m.	C.P.R.	Conso Station, 1st West, Mt. & O St., Mileage 6-35, Que.	..	1	Unprotected.	Auto.
47391	27156-268	Aug. 19	9.30 p.m.	C.P.R.	Farnham, St. Alphonse Street, Adirondack St., Mileage 6-36, Que.	..	1	Unprotected.	Auto.
47303	27156-184	Aug. 5	7.52 a.m.	C.P.R.	Berthier, 1st East, Three Rivers St., Mileage 44-24, Que.	..	5	Unprotected.	Auto.
47326	31646-28	Aug. 11	9.40 p.m.	Q.C.R.	St. Marie Station, 2nd South, Quebec St., Mileage 103-5, Que.	..	1	Unprotected.	Auto.
47472	26711-702	Aug. 30	12.43 p.m.	C.N.R.	Lakeview, Haig Blvd., ½ mile East of, Oakville St., Mileage 10-58, Ont.	1	..	Flashing Light Signal and Bell	Pedestrian.
47473	26711-938	Aug. 16	12.12 p.m.	C.N.R.	Vineland Station, 1st East, Grimsby St., Mileage 18-65, Ont.	1	..	Unprotected.	Auto.
47540	9437-294-1	Aug. 13	9.41 p.m.	C.N.R.	Bracebridge Station, 2nd South, Muskoka St., Huntsville St., Ont.	1	4	Unprotected.	Auto.
47332	9437-200	Aug. 7	7.05 p.m.	C.N.R.	Scarboro Station, 2nd West, Oshawa St., Mileage 325-74, Ont.	..	3	Unprotected.	Auto.
47396	9437-833	Aug. 6	8.10 a.m.	C.N.R.	Graham's Bay Station, 1st West, Renfrew St., Mileage 8-4, Ont.	..	1	Unprotected.	Auto.
47399	26711-740	Aug. 9	7.28 a.m.	C.N.R.	Moulinette Station, 1st East, Cornwall St., Mileage 73-73, Ont.	1	..	Unprotected.	Auto.
47318	26711-896	Aug. 6	11.50 p.m.	C.N.R.	Kincardine, 2½ mile South, Kincardine St., Mileage 55-50, Ont.	4	..	Unprotected.	Auto.
47425	26727-329	Aug. 20	5.20 a.m.	C.P.R.	Midhurst, crossing North of Station, Highway No. 26, MacTier St., Mileage 67-24, Ont.	..	3	Bell and Wigwag	Auto.
47505	26727-591	Aug. 11	6.25 p.m.	C.P.R.	Lens, East of Station, Belleville St., Mileage 61, Ont.	..	1	Unprotected.	Auto.
47498	26727-313	Aug. 19	10.00 a.m.	C.P.R.	Carleton Place, Town Line Crossing, Chalk River St., Mileage 18-04, Ont.	..	1	Unprotected.	Gasoline Road Roller.
47499	26727-296	Aug. 19	10.20 a.m.	C.P.R.	Alfred Station, East of, M. & O. St., Mileage 46-17, Ont.	..	1	Unprotected.	Auto.

47525	9437-1255	Aug. 21	9:45 p.m.	C.P.R.	Owen Sound Subdivision, Mileage 39, Ont.	..	2	Unprotected.	Auto.
47549	35460-16	Aug. 7	5:10 p.m.	G.R.	Kitchener, Sydney St., Waterloo St., Mileage 11, Ont.	..	2	Unprotected.	Auto.
47274	26842-1	Aug. 6	5:50 p.m.	M.C.R.	Hagersville, Tuscorora St., Main Line Sd., NF 55-42, Ont.	1	..	Double Bell and Wags.	Auto.
47311	27365-103	Aug. 3	10:50 a.m.	C.P.R.	Morden Station, 2nd West, LaRiviere St., Mileage 79-91, Man.	1	..	Unprotected.	Auto truck.
47476	27365-183	Aug. 24	9:40 p.m.	C.P.R.	Newdale, 1st West of Station, Bredenbury St., Mileage 18-4, Man.	1	..	Unprotected.	Auto.
47541	27365-98	Aug. 31	20:43 K	C.P.R.	Winnipeg Terminals, Notre-Dame Avenue, Man.	1	1	Unprotected.	Auto truck.
47448	27467-247	Aug. 7	2:15 p.m.	C.N.R.	Stenep Station, 1st West, Preeceville St., Mileage 58-09, Sask.	..	1	Unprotected.	Auto truck.
47395	618-101	Aug. 9	8:27 a.m.	C.P.R.	Nisku, 1 mile North, Leduc St., Mileage 85-1, Alta.	..	1	Unprotected.	Auto.
47337	30213-67	Aug. 10	8:00 a.m.	C.N.R.	Yale Subdivision, Mileage 109-9, B.C.	..	1	Unprotected.	Auto.
47601	33229-168	Sept. 27	5:10 p.m.	C.N.R.	St. John, Rotherday Ave., Sussex St., Mileage 85-39, N.B.	2	1	Unprotected.	Auto truck.
47630	33229-94	Sept. 22	3:45 p.m.	C.N.R.	McGivney, 2nd East of Station, Chipman St., Mileage 84-90, N.B.	1	..	Unprotected.	Auto truck.
47638	26782-421	Sept. 12	7:50 p.m.	C.N.R.	Sayabec Station, 1st West, Matapedia St., Mileage 75-93, Que.	6	..	Unprotected.	Auto.
47661	27156-119	Sept. 23	7:21 p.m.	C.P.R.	Actonvale Station, 1st South, Drummondville St., Mileage 41-69, Que.	1	1	Unprotected.	Auto.
47490	27156-208	Sept. 2	12:15 p.m.	C.P.R.	Drummondville, Marchand St., Drummondville St., Mileage 59-0, Que.	..	1	Unprotected.	Pedestrian.
47660	45107-2	Sept. 23	4:00 p.m.	Temiscouata	Riviere du Loup Station, 1st South, Mileage 3-50, Que.	1	3	Unprotected.	Auto bus.
47556	31046-40	Sept. 7	4:14 p.m.	Q.C.R.	St. Justine, 1st West of Station, Chaudiere St., Mileage 50-6, Que.	..	1	Unprotected.	Pedestrian.
47637	9437-20	Sept. 24	5:45 p.m.	C.N.R.	Kitchener, Ahrens St., 1st West of Station, Brampton St., Mileage 62-60, Ont.	..	2	Double Bell and Wags.	Auto.
47522	20127	Sept. 4	8:05 p.m.	C.N.R.	Strathroy, Richmond St., Strathroy St., Mileage 20-18, Ont.	1	..	Double Bell and Wags.	Auto.
47636	26765-71	Sept. 24	11:15 p.m.	C.N.R.	Kitchener, 3rd East of Station, Lancaster St., Brampton St., Mileage 62-08, Ont.	..	2	Single Bell and Wags.	Auto.
47645	26711-109	Sept. 23	8:35 p.m.	C.N.R.	Merriton, St. David's Road, Grimsby St., Mileage 9-24, Ont.	..	2	Unprotected.	Auto.
47554	26711-212	Sept. 1	10:25 p.m.	C.N.R.	Guelph, Crinna St., Fergus St., Mileage 50-41, Ont.	..	3	Unprotected.	Auto.
47600	26711-959	Sept. 18	6:50 a.m.	C.N.R.	Burlington, 2nd East, Easterbrook Road, Oakville St., Mileage 33-3, Ont.	2	..	Unprotected.	Auto truck.
47631	26711-555	Sept. 21	7:30 p.m.	C.N.R.	Lindsay, Russell St., Haliburton St., Mileage 0-46, Ont.	..	3	Unprotected.	Auto.
47639	26711-236	Sept. 23	7:45 a.m.	C.N.R.	Elgin Station, 1st West, Smiths Falls St., Mileage 37-40, Ont.	..	3	Unprotected.	Auto.
47699	26711-940	Sept. 8	4:50 a.m.	C.N.R.	Brunner Station, 1st East, Newton St., Mileage 11-48, Ont.	1	..	Single Bell and Wags.	Auto.
47480	26727-329	Sept. 7	3:48 p.m.	C.P.R.	Midhurst Station, Highway No. 26, MacTier St., Mileage 67-24, Ont.	..	2	Unprotected.	Auto.
47542	26727-414	Sept. 8	8:10 a.m.	C.P.R.	Orangeville Station, 1-42 miles North, Owen Sound St., Mileage 1-42, Ont.	..	7	Unprotected.	Auto.
47502	26727-455	Sept. 7	8:35 a.m.	C.P.R.	Walkerville Junction, 1st East, Pilette Road, Windsor St., Mileage 106-80, Ont.	..	1	Unprotected.	Auto truck.
47596	26842-195	Sept. 30	9:30 a.m.	M.C.R.	Fletcher, 3rd West, Main Line Sd., Mileage 184, Ont.	2	..	Double Bell and Wags.	Auto truck.
47658	18946	Sept. 11	9:05 a.m.	T.H. & B.	Hamilton, Barton St., Belt Line, Ont.	..	1	Unprotected.	Auto truck.
47607	3553-6	Sept. 9	2:10 p.m.	C.N.R.	Langruth Station, 1st North, Oakland St., Mileage 38-79, Man.	..	1	Unprotected.	Auto truck.
47569	27365-184	Sept. 7	6:05 p.m.	C.P.R.	Nedley Station, 1st North, Winnipeg Beach St., Mileage 36-95, Man.	1	..	Unprotected.	Auto.

STATEMENT No. 18.—HIGHWAY CROSSING ACCIDENTS FOR THE YEAR ENDED DECEMBER 31, 1948 (cont.)

Inv. File	Board File	Date	Time	Railway	Place	Killed	Injured	Protection	Class of Accident
47646	26727-249	Sept. 17	9.25 p.m.	C.N.R.	Saskatoon, Extension of Lorne Ave., Govel Sd., Mileage 59.3, Sask.	..	2	Unprotected.	Auto.
47620	27467-101	Sept. 7	3.00 a.m.	C.N.R.	Lloydminster, 2 miles East, Blackfoot Sd., Mileage 82.3, Sask.	..	5	Unprotected.	Auto.
47662	27467-248	Sept. 16	8.35 a.m.	C.N.R.	Waldron Station, 1st West, Miniota Sd., Mileage 123.4, Sask.	..	2	Unprotected.	Auto.
47701	26807-168	Sept. 17	10.25 a.m.	C.P.R.	Horizon Station, 1st East, Assiniboia Sd., Mileage 66.5, Sask.	..	1	Unprotected.	Auto truck.
47700	26807-15	Sept. 16	1.15 p.m.	C.P.R.	Regina, Lanigan Sd., Mileage 2, Sask.	..	1	Unprotected.	Auto truck.
47724	28786-166	Sept. 25	8.30 p.m.	C.N.R.	Tonfald Station, 2nd South, Kingman Sd., Mileage 0.53, Alta.	..	1	Unprotected.	Auto.
47647	11340	Sept. 23	8.02 p.m.	C.N.R.	North Edmonton Station, 1st East, Edmonton Terminal Sd., Mileage 3.18, Alta.	..	2	Unprotected.	Auto.
47470	2634	Sept. 2	7.50 p.m.	C.P.R.	Calgary Station, 1st West, 4th St. West, Calgary Terminal Sd., Alta.	..	1	Gates.	Pedestrian.
47687	27811-209	Sept. 28	9.08 a.m.	C.P.R.	Magrath, 1st East of Station, Cardston Sd., Mileage 16.35, Alta.	..	2	Unprotected.	Auto.
47523	17932	Sept. 6	6.50 p.m.	C.P.R.	Warner Station, 1st South, Coult's Sd., Mileage 23.01, Alta.	1	2	Unprotected.	Auto.
47505	29014-19	Sept. 12	12.30 p.m.	N.A.R.	Hylo Station, 2nd West, Lac La Biche Sd., Alta.	..	2	Unprotected.	Auto.
47723	183-1	Oct. 1	7.40 a.m.	C.N.R.	Sydney, George St., Sydney Sd., Mileage 101.23, N.S.	..	1	Bell and Wigwag.	Auto.
47734	27218-196	Oct. 4	7.45 a.m.	C.N.R.	Murray Station, 1st West, Mulgrave Sd., Mileage 3.04, N.S.	..	1	Unprotected.	Auto truck.
47735	26782-422	Oct. 2	9.20 a.m.	C.N.R.	Bourbonais, 1st East, Armagh Sd., Mileage 82.15, Que.	..	1	Unprotected.	Auto.
47736	26782-423	Oct. 6	1.15 p.m.	C.N.R.	Boucherville, 2nd East, Sorel Sd., Mileage 8.8, Que.	1	1	Unprotected.	Auto.
47837	27156-117	Oct. 20	7.44 a.m.	C.P.R.	Montreal West Station, 1st West, Montreal Terminal Sd., Que.	1	1	Gates.	Pedestrian.
47750	25040	Oct. 17	9.53 a.m.	C.P.R.	Strathmore, 1st West, Winchester Sd., Mileage 6.74, Que.	1	..	Flashing Light Signal and Bell.	Pedestrian.
47730	35551	Oct. 2	8.10 p.m.	C.P.R.	Gatineau Station, 1st West, Lachute Sd., Mileage 111.91, Que.	..	1	Unprotected.	Auto.
47766	27156-119	Oct. 14	7.20 p.m.	C.P.R.	Actonville Station, 1st South, Drummondville Sd., Mileage 41.69, Que.	..	4	Unprotected.	Auto.
47844	27156-278	Oct. 25	8.10 p.m.	C.P.R.	Montreal Terminal, Lafleur Ave., LaSalle Loop Sd., Mileage 0.42, Que.	..	1	Unprotected.	Auto.
47688	1916	Oct. 2	1.57 p.m.	C.N.R.	Burlington, 1st East of Station, Brant St., Oakville Sd., Mileage 31.4, Ont.	1	..	Gates.	Cyclist.
47094	9437-797	Oct. 27	5.15 p.m.	C.N.R.	Peterboro, King St., Campbellford Sd., Mileage 63.40, Ont.	..	1	Bell and Wigwag.	Auto.
47879	25272	Oct. 29	2.15 p.m.	C.N.R.	Stratford, Duncry St., Thornhill Sd., Mileage 0.15, Ont.	1	1	Watchman.	Pedestrian.
47922	26711-943	Oct. 8	4.00 p.m.	C.N.R.	Deseronto Station, 1st East, Aukerdale Sd., Mileage 2.68, Ont.	..	1	Unprotected.	Auto.
47826	26711-942	Oct. 9	5.15 p.m.	C.N.R.	Sudbury Junction, 2nd West, Sudbury Terminal Sd., Mileage 1.4, Ont.	..	1	Unprotected.	Auto.
47785	26711-248	Oct. 8	7.14 p.m.	C.N.R.	Goodwood Station, 1st East, Uxbridge Sd., Mileage 35.20, Ont.	1	..	Unprotected.	Auto.
47796	26711-941	Oct. 18	2.30 p.m.	C.N.R.	Blackwater Station, 2nd North, Cobocok Sd., Mileage 1.22, Ont.	..	1	Unprotected.	Auto truck.
47924	9437-218	Oct. 20	7.22 p.m.	C.N.R.	Bradford, 1st South of Station, Newmarket Sd., Mileage 40.9, Ont.	..	2	Unprotected.	Auto.
47839	27765-24	Oct. 27	8.55 p.m.	C.N.R.	London, Adelaide St., Dundas Sd., Mileage 77.23, Ont.	..	1	Unprotected.	Auto.
47945	26711-945	Oct. 30	12.01 p.m.	C.N.R.	Brantford, Jex St., Burford Sd., Mileage 1.22, Ont.	..	1	Unprotected.	Auto.

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	Oct. 13	11.05 a.m.	C.P.R.	Agincourt Station, 3 1/4 miles West, Oshawa Sd., Mileage 96-47, Ont.	1	Unprotected	Auto. Auto.
47786	3878-32		C.P.R.	Port Arthur, Nipigon Sd., Mileage 127-06, Ont.	1	Unprotected	Auto.
47824	20528	Oct. 23	C.P.R.	Falgrave, South of, 8th Concession Crossing, MacTier Sd., Ont.	..	Unprotected	Auto.
47957	26727-592	Oct. 26	C.P.R.	Coché Bay 3 miles West, Cartier Sd., Mileage 29-51, Ont.	1	Unprotected	Motorcycle.
47921	38740-1	Oct. 25	C.P.R.	Fort Erie, Central Ave., Main Line Sd., Ontario	1	Unprotected	Auto truck.
47809	18046-2	Oct. 25	M.C.R.	Near Portage La Prairie, 1st Crossing East of East Tower, Gladstone Sd., Mileage 53-6, Man.	..	Unprotected	Auto truck.
47741	46744-114	Oct. 2	C.N.R.	St. Boniface, Archibald St., Man.	1	Unprotected	Auto.
47905	24692	Oct. 1	C.N.R.	Fort Gary, Letellier Sd., Mileage 1-64, Man.	2	Unprotected	Auto.
47905	26744-141	Oct. 23	C.N.R.	Near Emerson, Emerson Sd., Mileage 61-8, Man.	1	Unprotected	Auto.
47772	27365-186	Oct. 9	C.P.R.	Whittemouth, 1st West of Station, Keewatin Sd., Mileage 72-51, Man.	2	Unprotected	Auto.
47779	27365-105	Oct. 13	C.P.R.	Glenboro Sd., Mileage 12-4, Man.	3	Unprotected	Auto.
47773	27365-185	Oct. 13	C.P.R.	Estevan Sd., Mileage 62-9, Man.	1	Unprotected	Auto.
47808	27365-187	Oct. 16	C.P.R.	Winnipeg, Winnipeg Beach Sd., Mileage 1-81, Man.	..	Unprotected	Auto.
47892	27365-188	Oct. 28	C.N.R.	Humboldt, St. Bruce Sd., Mileage 51-68, Sask.	1	Unprotected	Auto.
47875	27467-251	Oct. 6	C.N.R.	Palo Station, 1st West, Unity Sd., Mileage 16-36, Sask.	1	Unprotected	Auto.
47834	27467-252	Oct. 8	C.N.R.	Ketchikan, 1st East, Preceville Sd., Mileage 79-05, Sask.	1	Unprotected	Auto.
47740	27467-250	Oct. 8	C.N.R.	Brancheport, West of West switch, Tisdale Sd., Sask.	1	Unprotected	Auto.
47862	27467-253	Oct. 31	C.N.R.	Shanavon Sd., Mileage 8-9, Sask.	2	Unprotected	Auto.
47902	26807-205	Oct. 27	C.N.R.	Newsepta, 1st North, Camrose Sd., Mileage 24-43, Alta.	..	Unprotected	Auto.
47731	28786-92	Oct. 1	C.N.R.	Munson Junction, 1st East, Drumheller Sd., Mileage 40-37, Alta.	1	Unprotected	Auto.
47835	28786-108	Oct. 1	C.N.R.	Leduc, Main St., Leduc Sd., Mileage 79, Alta.	2	Unprotected	Auto.
47806	27811-188	Oct. 15	C.P.R.	Edmonton South, 83rd Avenue, Leduc Sd., Mileage 97-1, Alta.	1	Unprotected	Auto.
47840	27811-206	Oct. 19	C.P.R.	Craddock, Coutis Sd., Mileage 4-99, Alta.	1	Unprotected	Auto.
47869	34534	Oct. 29	C.P.R.	Conmemora Station, 2nd North, MacLeod Sd., Mileage 51-04, Alta.	2	Unprotected	Auto.
47863	27811-81	Oct. 29	C.P.R.	Erickson, Nelson Sd., Mileage 63-9, B.C.	1	Unprotected	Auto.
47810	43918	Oct. 17	C.N.R.	Richmond Station, Main Road Crossing, Tignish Sd., Mileage 16-3, P.E.I.	5	Unprotected	Auto.
48119	33550-38	Nov. 21	C.N.R.	McKinnon Harbor Station, 1st East, Sydney Sd., Mileage 40-N.S.	7	Unprotected	Auto.
48083	27218-198	Nov. 18	C.N.R.	Astoria Station, 1st West, Nashwaak Sd., Mileage 67-87, N.B.	1	Unprotected	Auto.
48006	33229-91	Nov. 19	C.N.R.	Rimouski Cathedral St., Rimouski Sd., Mileage 18-1, Que.	1	Unprotected	Auto.
48088	26782-187	Nov. 12	C.N.R.	Drummondville Station, 1st West, Drummondville Sd., Mileage 98-5, Que.	1	Unprotected	Auto.
47947	26782-191	Nov. 8	C.N.R.	Cedars, 1st West, Cornwall Sd., Mileage 29-21, Que.	2	Unprotected	Auto.
47926	26782-424	Nov. 10	C.N.R.	Dosquet Station, 1st East, Daerville Sd., Mileage 19-8, Que.	1	Unprotected	Auto.
47937	26782-343	Nov. 1	C.N.R.	Noranda Station, 1st North, Rouyn Sd., Mileage 43-9, Que.	3	Unprotected	Auto.
47958	26782-290	Nov. 6	C.N.R.	Joliette, North of, St. Gabriel Sd., Mileage 7-7, Que.	1	Unprotected	Auto.
47927	36600-26	Nov. 13	C.P.R.	Milan Station, 1st East, Megantic Sd., Mileage 14-8, Que.	2	Unprotected	Auto.
48000	27156-289	Nov. 12	C.N.R.	Baden, 2nd East, Highway No. 7, Brampton Sd., Mileage 72-39, Ont.	2	Unprotected	Auto.
47928	9437-1331	Nov. 11	C.N.R.	Paisley Station, 3rd North, Southampton Sd., Mileage 37-97, Ont.	1	Unprotected	Auto.
48005	9437-645	Nov. 13	C.N.R.	Port Colborne, 1st East of Drawbridge, Dunnville Sd., Mileage 19, Ont.	..	Unprotected	Auto.
47944	27802-38	Nov. 6	C.N.R.	Fort Frances, Victoria Ave., Fort Frances Sd., Ont.	2	Unprotected	Auto.
48170	26711-28	Nov. 30	C.N.R.	Centralia, 3rd North, Crediton Road, Exeter Sd., Mileage 23-86, Ont.	1	Unprotected	Auto.
48062	26711-496	Nov. 17	C.N.R.		..	Unprotected	Auto.

STATEMENT No. 18. — HIGHWAY CROSSING ACCIDENTS FOR THE YEAR ENDED DECEMBER 31, 1948 (cont.)

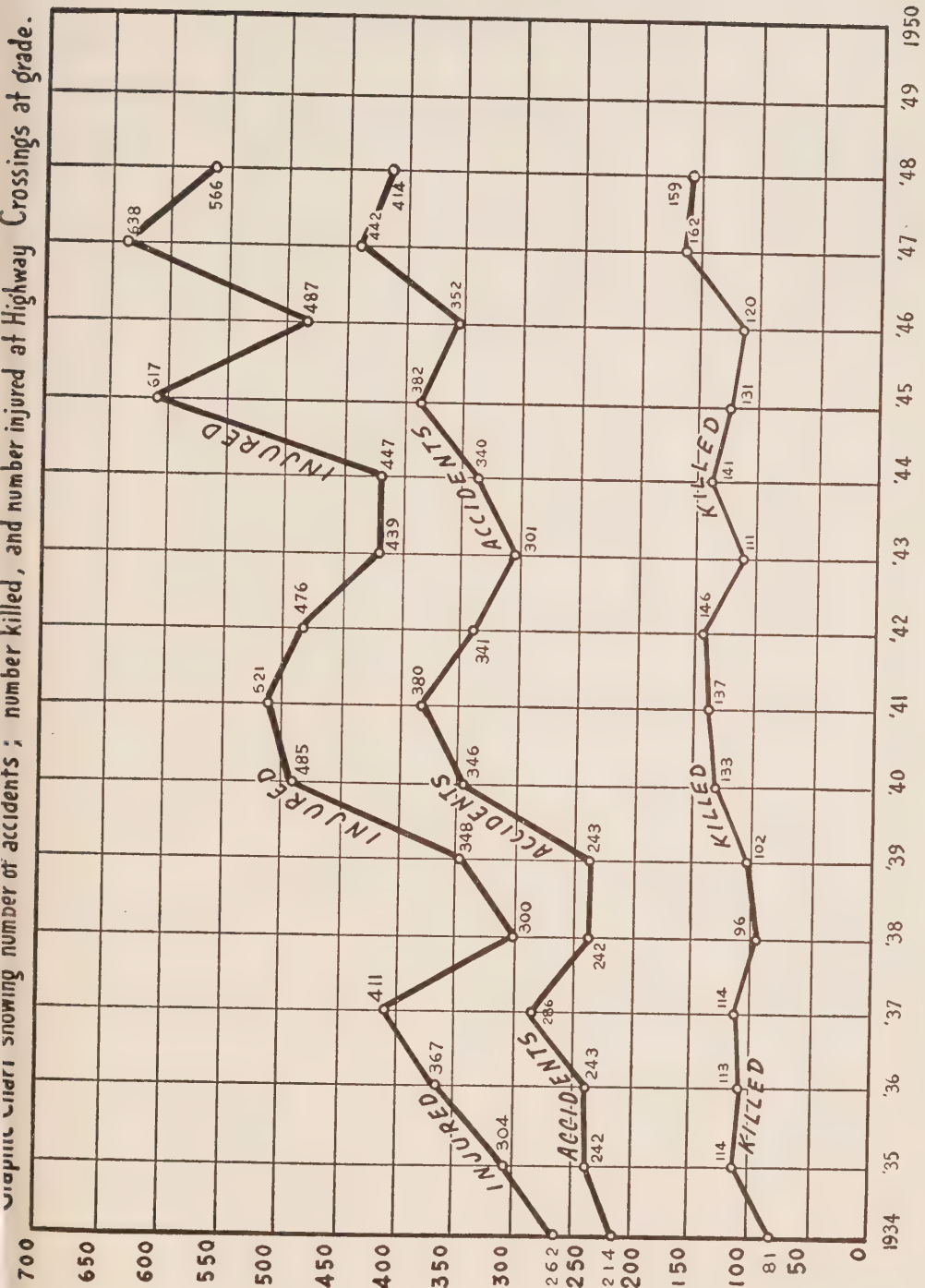
Inv. File	Board File	Date	Time	Railway	Place	Killed	Injured	Protection	Class of Accident
48063	26711-281	Nov. 19	5.45 p.m.	C.N.R.	Pembroke Junction, 2 miles West, Highway No. 62.	..	1	Unprotected.	Auto.
48035	26765-200	Nov. 21	3.35 a.m.	C.N.R.	Beachburg St., Mileage 88-8, Ont.	1	..	Unprotected.	Auto.
48028	26711-162	Nov. 8	1.55 p.m.	C.N.R.	Oakville Station, 2nd East, Oakville St., Mileage 19-23, Ont.	..	4	Unprotected.	Auto.
48017	9437-985	Nov. 23	6.00 p.m.	C.P.R.	Port Hope, Dorset St., Lakefield St., Mileage 0-45, Ont.	..	..	Unprotected.	Auto.
48065	26227-593	Nov. 21	9.00 p.m.	C.P.R.	Weston, King St., MacTier St., Mileage 3-94, Ont.	1	..	Unprotected.	Auto.
48097	26802-10	Nov. 17	1.00 a.m.	C.P.R.	Renfrew, Munro St., Chalk River St., Mileage 59-05, Ont.	..	1	Unprotected.	Auto.
47973	26744-43	Nov. 12	2.01 p.m.	T.H. & B.	Brantford, Eagle Avenue, Ont.	..	1	Unprotected.	Auto.
48025	21020	Nov. 14	6.40 p.m.	C.N.R.	Near Portage La Prairie, Highway No. 1, Harte St., Mileage 51-7, Man.	..	4	Unprotected.	Auto truck.
48122	26744-169	Nov. 28	12.40 K	C.N.R.	St. Boniface, Transfer track from Paddington Yard to C.N.R. Stock Yard Transfer, Dawson Road, Man.	..	1	Unprotected.	Auto truck.
48069	26744-168	Nov. 25	12.15 p.m.	C.N.R.	Oakburn Station, 3 poles East, Rosburn St., Mileage 65-45, Man.	..	1	Unprotected.	Auto.
48075	C. 4803	Nov. 21	6.21 K	C.N.R.	Deer, 1st East of Passenger Shelter, Harte St., Mileage 76-62, Man.	1	..	Unprotected.	Auto truck.
48021	26744-167	Nov. 7	6.40 p.m.	C.P.R.	Portage La Prairie, 1st West of C.N.R. Station, Harte St., Mileage 54-4, Man.	..	1	Unprotected.	Auto.
47974	27365-189	Nov. 9	9.40 p.m.	C.P.R.	Brandon, Victoria Ave., Broadview St., Man.	2	3	Unprotected.	Auto.
48090	27365-3	Nov. 30	9.20 K	C.P.R.	Winnipeg Beach St., Mileage 13-9, Man.	..	1	Unprotected.	Auto truck.
48107	8463	Nov. 26	9.57 K	C.N.R.	Winnipeg, Aberdeen Ave., Winnipeg Beach St., Mileage 84, Man.	..	1	Unprotected.	Auto.
47925	27467-254	Nov. 15	12.30 p.m.	C.N.R.	Aberdeen St., 1st East, Aberdeen St., Sask.	1	..	Unprotected.	Auto truck.
47958	27467-171	Nov. 2	10.55 p.m.	C.N.R.	Asquith St., Mileage 40-45, Sask.	..	1	Unprotected.	Auto.
47904	27811-210	Nov. 3	4.25 p.m.	C.P.R.	Saskatoon, Terminal, 11th St., Gavel St., Mileage 1-92, Alta.	..	1	Unprotected.	Auto.
48058	27811-211	Nov. 23	3.30 p.m.	C.P.R.	Balzac Station, 1st South, Red Deer St., Mileage 13-6, Alta.	..	1	Unprotected.	Auto truck.
48057	Case 3935	Nov. 22	11.40 p.m.	C.P.R.	High River Station, 1st South, Macleod St., Mileage 38-82, Alta.	..	2	Unprotected.	Auto.
48014	30213-68	Nov. 7	7.35 p.m.	C.N.R.	South Edmonton, 1st North of Station, Leduc St., Mileage 96-8 (82nd Ave.), Alta.	1	..	Unprotected.	Auto.
47948	27073-23	Nov. 7	12.09 a.m.	C.P.R.	Chilliwack, Young St., 1st East of Station, Yale St., Mileage 71-94, B.C.	..	1	Unprotected.	Auto.
48032	27073-24	Nov. 11	8.27 p.m.	C.P.R.	Conbrook St., Mileage 96-45, B.C.	2	..	Unprotected.	Auto truck.
48153	30051-26	Nov. 28	17.13 K	B.C.E.	Cranquilam, Shaughnessy St., 1st East of Station, Cascade St., Mileage 122-2, B.C.	..	1	Unprotected.	Auto.
48213	27218-172	Dec. 10	3.58 p.m.	C.N.R.	Vancouver, 22nd Avenue, B.C.	..	1	Unprotected.	Auto.
48289	38681-11	Dec. 16	3.05 p.m.	C.N.R.	Chester St., Mileage 50-35, 3rd Crossing West of Chester Station, N.S.	1	3	Unprotected.	Auto.
48347	33229-66	Dec. 25	12.30 a.m.	C.N.R.	Chatham, Ferry St., Loggieville St., Mileage 8-53, N.B.	..	1	Unprotected.	Horse-drawn vehicle.
48317	33229-144	Dec. 25	7.10 p.m.	C.N.R.	St. Leonard, Bridge St., Grand Falls St., Mileage 87-61, N.B.	..	3	Unprotected.	Auto.
48201	9437-1163	Dec. 15	10.16 a.m.	C.P.R.	Tracadie, Main Highway Crossing, Caruquet St., Mileage 72-95, N.B.	..	2	Unprotected.	Auto truck.
48128	26782-186	Dec. 8	1.18 a.m.	C.N.R.	Westfield Beach, 1st crossing East, Saint John St., Mileage 13-54, N.B.	1	..	Unprotected.	Pedestrian.
					Joliette, 2nd crossing East, Grand Mere St., Mileage 78-77, Highway No. 42, Que.	1	2	Unprotected.	Auto.

48288	26782-428	Dec. 17	10.45 a.m.	C.N.R.	Cascapedia Sd., Mileage 13-02, Que.	1	Unprotected.	Auto truck.
48207	26782-62	Dec. 24	11.27 p.m.	C.N.R.	Monklands, O'Brien Blvd., Mount Royal Sd., Mileage 6-78, Que.	3	Unprotected.	Auto taxi.
48212	26782-427	Dec. 29	1.55 p.m.	C.N.R.	St. Paulin, Grand Mere Sd., Mileage 44-4, Que.	3	Unprotected.	Auto.
48208	26782-426	Dec. 28	12.00 Noon	C.N.R.	Duchesnay Station, 1st North, Batiscan Sd., Mileage 22-74, Que.	1	Unprotected.	Auto truck.
48146	26782-360	Dec. 11	1.55 p.m.	C.N.R.	Montreal South, Ste. Helene St., Sorel Sd., Mileage 5-69, Que.	1	Unprotected.	Horse-drawn vehicle.
48204	27156-291	Dec. 24	5.40 p.m.	C.P.R.	Champlain, 1st West of Station, Quebec Sd., Mileage 94-8, Que.	1	Unprotected.	Auto.
48193	9437-934	Dec. 19	2.35 a.m.	C.P.R.	Magog Station, 1st West, Sherbrooke Sd., Mileage 86-9, Que.	6	Unprotected.	Auto.
48129	27156-290	Dec. 13	9.05 a.m.	C.P.R.	Prefontaine, Ste. Agathe Sd., Mileage 42-12, Que.	2	Unprotected.	Auto truck.
48096	23122	Dec. 11	7.47 a.m.	C.P.R.	Montreal Terminals, Cote St. Luc Sd., Mileage 0-87, Que.	1	Unprotected.	Auto truck.
48205	23270	Dec. 19	5.45 p.m.	C.P.R.	Buckingham Jct., 1st West, Lachute Sd., Mileage 100-01, Que.	1	Flashing Light Signal and Bell.	Auto.
48272	31646-17	Dec. 14	6.55 p.m.	Q.C.R.	Theftford Mines, St. Alphonse St., Quebec Sd., Mileage 68-4, Que.	1	Unprotected.	Auto.
48271	31646-34	Dec. 30	8.28 a.m.	Q.C.R.	Bishopton, 1st South of Station, Quebec Sd., Mileage 26-3, Que.	1	Unprotected.	Auto truck.
48211	27270-15	Dec. 30	2.40 p.m.	N.Y.C.	Woodlands, 1st North, St. Lawrence & Adirondack Div., Mileage 49-29, Que.	3	Unprotected.	Auto truck.
48221	9437-797	Dec. 23	6.40 p.m.	C.N.R.	Peterboro, Sherbrooke St., Campbellford Sd., Mileage 63-35, Ont.	2	Double Bell and Wig-wag.	Auto ¹ Pedestrian.
48334	9437-1098	Dec. 30	7.29 a.m.	C.N.R.	Windsor, Pilette Road, Chatham Sd., Mileage 104-01, Ont.	1	Unprotected.	Auto.
48095	26711-946	Dec. 4	1.25 a.m.	C.N.R.	Garson Mine, 6 miles East of Sudbury Terminal Sd., Mileage 4-3, Ont.	3	Unprotected.	Auto.
48171	26765-238	Dec. 20	8.30 a.m.	C.N.R.	Marshville Siding, 2nd East of Cayuga Sd., Mileage 24-63, Ont.	1	Unprotected.	Auto truck.
48270	26765-232	Dec. 22	8.50 p.m.	C.N.R.	Guelph, Dublin St., Brampton Sd., Mileage 49-09, Ont.	1	Unprotected.	Auto.
48200	26711-947	Dec. 21	9.25 p.m.	C.N.R.	Burlington, 1st West, Goeb's Lane Crossing, Oakville Sd., Mileage 83-0, Ont.	2	Unprotected.	Auto.
48210	26711-948	Dec. 24	2.35 a.m.	C.N.R.	Toronto, Jarvis St., Toronto Terminal Sd., Esplanade Terminals, Ont.	2	Unprotected.	Auto.
48319	26711-665	Dec. 24	3.30 p.m.	C.N.R.	Peterboro, McDonnell St., Lakefield Sd., Mileage 31-80, Ont.	2	Unprotected.	Auto.
48332	26711-233	Dec. 31	1.05 p.m.	C.N.R.	Rymal Highway No. 53, Hagersville Sd., Mileage 7-12, Ont.	2	Unprotected.	Auto.
48252	26727-55	Dec. 27	6.10 p.m.	C.P.R.	Toronto Terminals, Spadina and Front Streets, Ont.	1	Unprotected.	Auto.
48167	26727-137	Dec. 13	5.18 p.m.	C.P.R.	Ottawa, Parkdale Ave., Carleton Place Sd., Mileage 0-40, Ont.	3	Unprotected.	Auto.
48269	26727-594	Dec. 22	10.00 a.m.	C.P.R.	Goderich Sd., Mileage 50-23, Ont.	1	Unprotected.	Auto truck.
48130	26842-61	Dec. 4	7.20 p.m.	M.C.R.	Waterford, 1st East, Pond Road, Waterford Sd., Mileage 79-90, Ont.	2	Unprotected.	Auto.
48173	27802-43	Dec. 13	8.00 p.m.	T.H. & B.	Port Davidson, 2nd South, Dunnville Sd., Mileage 8-03, Ont.	2	Unprotected.	Auto.
48198	26842-88	Dec. 23	8.05 p.m.	M.C.R.	Fargo, 1 mile East, Communication Road, Main Line Sd., Mileage 179-62, Ont.	1	Double Bell and Wig-wags.	Auto.
48199	26711-768	Dec. 22	7.15 p.m.	C. & O.R.	Sarnia, Highway No. 40, Sarnia Yard, lead to Imperial Oil Plant No. 2, Ont.	1	Unprotected.	Auto.
48321	26744-86	Dec. 26	7.40 K	C.N.R.	Winnipeg, Waverley Street, Man.	1	Unprotected.	Auto.
48348	26744-170	Dec. 29	23.18 K	C.N.R.	Morris, 2nd South of Station, Boyne Avenue, Man.	2	Unprotected.	Auto.

STATEMENT No. 18. — HIGHWAY CROSSING ACCIDENTS FOR THE YEAR ENDED DECEMBER 31, 1948 (cont.)

Inv. File	Board File	Date	Time	Railway	Place	Killed	Injured	Protection	Class of Accident
48293	33559	Dec. 24	21.30 K	C.N.R.	Grandview, 2nd East of Station, Togo St., Mileage 29-13, Man.	..	1	Unprotected.	Auto.
48273	26744-125	Dec. 21	10.40 p.m.	Mid. Rlv. of Man.	Winnipeg, Notre Dame Avenue, Man.	..	1	Unprotected.	Auto truck.
48108	27467-121	Dec. 3	10.00 p.m.	C.N.R.	Flaxcombe Station, 1st East, Oyen St., Mileage 22-4, Man.	..	1	Unprotected.	Auto truck.
48147	27467-35	Dec. 10	2.15 a.m.	C.N.R.	Saskatoon, 1st East of Lorne Ave., Saskatoon Terminals St., Mileage 1-26, Sask.	..	6	Unprotected.	Auto taxi.
48180	27467-125	Dec. 13	3.08 p.m.	C.N.R.	Bruno Station, 1st West, Aberdeen St., Mileage 18-58, Sask.	..	1	Unprotected.	Auto truck.
48188	27467-255	Dec. 10	3.10 p.m.	C.N.R.	Unity Station, 1st West, Unity St., Mileage 58-3, Highway No. 14, Sask.	..	3	Unprotected.	Auto truck.
48320	27467-75	Dec. 24	18.25 K	C.N.R.	Radville, 1st East, Lampman St., Sask.	..	1	Unprotected.	Auto.
48140	28374-39	Dec. 6	9.13 a.m.	C.N.R.	Watrous Station, 1st East, Touchwood St., Mileage 128-3, Sask.	..	1	Unprotected.	Horse-drawn vehicle.
48296	20807-129	Dec. 25	17.30 K	C.P.R.	Vanguard St., Mileage 1-3, Sask.	..	5	Unprotected.	Auto.
48139	20807-53	Dec. 10	9.40 p.m.	C.P.R.	Regina, Pasqua St., Indian Head St., Mileage 93-9, Sask.	..	1	Unprotected.	Auto.
48222	15552	Dec. 18	8.17 p.m.	C.N.R.	Edmonton, 124th St., at 106th Ave., Edmonton Terminals St., Mileage 1-6, Alta.	..	1	Unprotected.	Auto.
48118	28786-157	Dec. 8	1.38 a.m.	C.N.R.	Edmonton, 82nd St., Edmonton Terminals St., Mileage 1-17, Alta.	..	2	Unprotected.	Auto truck.
48248	28786-167	Dec. 16	3.30 p.m.	C.N.R.	Camrose Station, 1st North, Camrose St., Mileage 48-08, Alta.	..	1	Unprotected.	Auto.
48282	27811-213	Dec. 29	12.53 K	C.P.R.	Red Deer St., Mileage 28-1, Alta.	..	1	Unprotected.	Auto.
48281	26711-214	Dec. 13	18.40 K	C.P.R.	Calgary Terminal, Imperial Oil Co., Stn., Alta.	..	1	Unprotected.	Auto truck.
48152	27811-212	Dec. 4	8.32 p.m.	C.P.R.	Alderslie Station, 1st North, Macleod St., Mileage 30-96, Alta.	..	2	Unprotected.	Auto.
48355	39014-9	Dec. 4	22.30 K	N.A.R.	Grande Prairie, Main St., 2nd West of Station, Grande Prairie St., Mileage 50-12, Alta.	..	1	Unprotected.	Auto.
48316	27073-157	Dec. 8	11.45 K	C.P.R.	Near Canmore, Merritt St., Mileage 29-1, Sunshine Valley Road, B.C.	..	2	Unprotected.	Auto truck.
48249	6052-42	Dec. 15	11.15 a.m.	C.P.R.	South Wellington, 1st South of Station, Victoria St., Mileage 67, B.C.	..	2	Unprotected.	Auto.
48250	27073-24	Dec. 16	10.05 p.m.	C.P.R.	Coquitlam, Shaughnessy St., Cascade St., Mileage 112-2, B.C.	..	1	Unprotected.	Auto truck.
48151	27073-109	Dec. 6	6.36 p.m.	C.P.R.	Castlegar, Rossland St., Mileage 1-83, B.C.	..	1	Unprotected.	Mail truck.
48143	44204	Dec. 6	3.44 p.m.	C.P.R.	Salmon Arm, 1st West of Station, Shuswap St., Mileage 64 B.C.	2	1	Unprotected.	Auto.
48150	27073-146	Dec. 2	13.05 K	C.P.R.	Natal Station, 1st West, Cranbrook St., Mileage 15, B.C.	..	1	Unprotected.	Auto truck.
Total Accidents 414						159	566		

Graphs chart showing number of accidents; number killed, and number injured at Highway Crossings at grade.



TRANSPORT COMMISSIONERS OF CANADA

STATEMENT No. 19. — NUMBER OF FREIGHT CARS INSPECTED, SHOWING CARS DEFECTIVE
FOR THE YEAR ENDED DECEMBER 31, 1948

Railway	Cars Inspected	Cars Defective
Canadian National.....	19,534	1,418
Canadian Pacific.....	15,302	1,148
British American Oil Co.....	50	6
Esquimalt and Nanaimo.....	175	26
Michigan Central.....	175	6
New York Central.....	45	2
North Star Oil Co.....	35	5
Temiscouata.....	30	14
Toronto, Hamilton and Buffalo.....	350	14
Totals.....	35,696	2,639

STATEMENT No. 20. — DEFECTIVE SAFETY APPLIANCES ON FREIGHT CARS REPORTED BY
THE BOARD'S INSPECTORS FOR THE YEAR ENDED DECEMBER 31st, 1948

Coupler and Parts including:

Broken or worn coupler.
Guard arm short.
Knuckle broken, worn or missing.
Knuckle pin broken, worn, bent or missing.
Lock block broken, worn, bent, missing or inoperative. (Defects 478)

Height of Couplers including:

Coupler too high.
Coupler too low.
Coupler tie straps loose or missing.
Carrier irons worn, loose or broken.
Carrier nuts and bolts broken or missing. (Defects 309)

Truck and Spring Defects including:

Body or truck frictions broken, loose or missing.
Centre castings worn, broken or loose.
Truck springs broken or missing. (Defects 800)

Uncoupling Mechanism including:

Uncoupling levers broken, bent or loose.
Uncoupling lever incorrectly applied.
Uncoupling links broken, loose or missing.
Uncoupling link kinked and not operative.
Uncoupling lever brackets broken, bent or loose.
Uncoupling levers non-standard. (Defects 140)

Handholds including:

Handholds broken, bent, loose or missing.
Handholds incorrectly applied. (Defects 307)

Sill Steps including:

Sill steps broken, bent, loose or missing.
Sill steps incorrectly applied. (Defects 146)

Ladders including:

Ladders bent, loose or missing.
Ladders incorrectly applied.
Ladder round broken, bent, loose or missing. (Defects 232)

Running Boards including:

Running boards broken, loose or missing.
Running boards incorrectly applied.
Running boards with non-standard end clearance.
Broken or loose end or side fascia boards.
Holes in decking of flat and open-top cars. (Defects 288)

Handbrakes including:

Defective brakemast, pawls, dogs, ratchet wheels, brake chains and rods,
brake pulley wheels, brake wheels or levers.
Non standard clearance brakemast wheels, including load fouling brakemast
wheel. (Defects 420)

Air Brakes including:

Cylinders and triple valve not cleaned within A.R.A. limit of cleaning.
Cylinder and triple valve not stencilled with date of cleaning.
Brakes cut out. (Defects 221)

All Air Brake Defects including:

Triple valve defective.
Reservoir defective.
Cylinder defective.
Cut-out cock defective.
Release cock defective.
Release rod defective.
Angle cock defective.
Train pipe defective or loose.
Train pipe clamps missing.
Hose defective.
Hose gasket defective.
Retaining valve defective or missing.
Retaining pipe defective or missing. (Defects 168)

Side Doors, etc. including:

Side doors loose and protruding from side of cars.
Miscellaneous. (Defects 523)

Total Defects..... 4,032

STATEMENT No. 21. — NUMBER OF LOCOMOTIVES INSPECTED, AND NUMBER OF DEFECTS ON RAILWAYS, FOR THE YEAR ENDED DECEMBER 31st, 1948

Classification	Total Defects
Air Compressor.....	21
Arch Tubes.....	5
Ashpans or Mechanism.....	2
Axles.....	1
Blow-off Cocks.....	103
Boiler checks.....	24
Boiler Shell.....	34
Brake Equipment.....	127
Cabs, or Cab Windows.....	34
Cab Aprons or Decks.....	20
Cab Cards.....	13
Coupling or uncoupling Devices.....	16
Crossheads, Guides, Pistons or Piston Rods.....	104
Crown Bolts.....	2
Cylinders, Saddles or Steam Chests.....	15
Cylinder Cocks or Rigging.....	4
Domes or Dome Caps.....	15
Draft Gear.....	70
Draw Gear.....	46
Driving Boxes, Shoes, Wedges or Pedestals.....	116
Firebox Sheets.....	13
Flues.....	1
Frames, Tail Pieces or Braces, Locomotive.....	57
Frames, Tender.....	6
Gauges, or Gauge Fittings, Air.....	13
Gauges, Steam.....	55
Gauge Cocks.....	38
Grate Shakers and Firedoors.....	11
Handholds.....	43
Injectors and Connections.....	58
Inspections or Tests not made as required.....	10
Lateral Motion.....	3
Lights, Cab or classification.....	84
Lights, Headlight.....	3
Lubricators and Appurtenances.....	2
Mudrings.....	4
Packing Nuts.....	7
Packing, Piston Rod and Valve Stem.....	18
Pilot or Pilot Beams.....	9
Plugs or Studs.....	15
Reversing Gear.....	7
Rods, Main and Side, Crank Pins or Collars.....	5
Safety Valves.....	17
Sanders.....	4
Springs or Spring Rigging.....	26
Staybolts.....	259
Staybolts broken.....	11
Steam Pipes.....	1
Steam Valve.....	29
Steps.....	61
Tender.....	51
Telltale Holes.....	49
Throttle or Dry Pipes.....	4
Trucks, engine.....	37
Trucks, tender.....	28
Valve motion.....	126
Washout Plugs.....	15
Water Glass, Fittings or Shields.....	37
Wheels.....	102
Miscellaneous.....	208
Fire Protective Appliances.....	37
	168
Total Defects.....	2,501

	Locomotives Inspected
Canadian National.....	3,956
Canadian Pacific.....	3,484
Miscellaneous.....	839
Total.....	8,279

STATEMENT No. 21A. — STATEMENT OF BOILER EXPLOSIONS AND CROWN SHEETS DAMAGED FOR THE YEAR 1948

Railway	Date	Engine No.	Place	Remarks
			<i>Boiler Explosions</i>	
			Nil	
			<i>Crown Sheets Damaged</i>	
Canadian National.....	Jan. 27.....	C.N.R. 2588.....	Radville, Sask.....	Shortage of water while en route.
Canadian National.....	Feb. 10.....	C.N.R. 926.....	Napanee, Ont.....	Shortage of water while en route.
Canadian National.....	Feb. 16.....	C.N.R. 6202.....	Turcot, Que.....	Fire lit while boiler short of water.
Canadian National.....	Mar. 10.....	C.N.R. 2545.....	Turcot-Richmond, Que.....	Shortage of water while en route.
Canadian National.....	Sept. 16.....	C.N.R. 2580.....	Dartmouth St., Mileage 6-35, N.S.....	Shortage of water while en route.
Canadian Pacific.....	Jan. 8.....	C.P.R. 5909.....	Revelstoke, B.C.....	Fire lit while boiler short of water.
Canadian Pacific.....	July 3.....	C.P.R. 561.....	Lake Windermere, B.C.....	Watchman allowed water to become low.
Canadian Pacific.....	Dec. 24.....	C.P.R. 3713.....	Turner, Ont.....	Watchman allowed water to become low.
SUMMARIES				
<i>Boiler Explosions</i>				
Nil				
<i>Crown Sheets Damaged</i>				
Canadian National.....				5
Canadian Pacific.....				3
Total.....				8

Total, Class A.....	1	.....	5	.....	4	3	.....	1	.....	15
Total, Class B.....	5	.....	1	.....	9	6	.....	4	.....	28
Total, Class C.....	1	.....	.....	.....	2	2	.....	.....	.....	5
Total.....	7	.....	6	.....	15	11	.....	5	.....	48
<i>Areas burned (acres)</i> —										
Young forest growth.....	1	.....	.....	.....	876	25	.....	3	.....	905
Merchantable timber.....	321	.....	.....	.....	3	5	.....	.....	.....	329
Slashing or old burn.....	6	.....	.....	.....	2,812	6	.....	.....	.....	2,818
Other classes of land.....	.....	.....	.....	.....	8	648	.....	11	.....	677
Total.....	328	.....	1	.....	3,699	684	.....	14	.....	4,729
<i>Value of property destroyed</i> —										
Young forest growth.....	.....	\$	\$	\$	\$	\$	.....	\$	\$	\$
Standing timber.....	64	.....	.....	.....	370	94	.....	.....	.....	464
Forest products.....	.....	.....	.....	.....	30	30	.....	.....	.....	124
Other property.....	10	.....	.....	.....	236	393	.....	.....	2,000	2,644
Total.....	74	.....	5	.....	636	517	.....	.....	2,000	3,232
<i>Fires of Unknown Origin</i> —										
<i>Number</i> —										
Class A.....	2	.....	.....	.....	.....	.....	.....	.....	.....	5
Class B.....	5	.....	.....	.....	.....	.....	.....	.....	.....	20
Class C.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7
Total.....	7	.....	.....	.....	.....	.....	.....	.....	.....	32
<i>Areas burned (acres)</i> —										
Young forest growth.....	10	.....	.....	.....	.....	.....	.....	.....	.....	176
Merchantable timber.....	.....	.....	.....	.....	500	.....	.....	.....	.....	500
Slashing or old burn.....	6	.....	.....	.....	1	9	.....	.....	.....	43
Other classes of land.....	3	.....	.....	.....	4	82	.....	.....	.....	1,439
Total.....	19	.....	.....	.....	505	91	.....	.....	.....	2,158
<i>Value of property destroyed</i> —										
Young forest growth.....	75	\$	\$	\$	\$	\$	.....	\$	\$	\$
Standing timber.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	878
Forest products.....	.....	.....	.....	.....	100	.....	.....	.....	.....	100
Other property.....	8	.....	.....	.....	5	5	.....	.....	.....	58
Total.....	83	.....	.....	.....	105	5	.....	800	.....	1,036

(a) Includes Dominion Atlantic Railway.

(b) Includes Esquimalt and Nanaimo Railway.

(c) Includes the following lines: Nipissing Central; Temiscouata; White Pass and Yukon Route.

Note:—No fires were reported during 1948 as originating within 300 feet of track in forest sections along the following lines: Cumberland Railway & Coal Company; Maine Central; Maritime Coal, Railway & Power Company; Spokane International; Sydney and Louisburg.

Class A fires are those which cover an area less than one-fourth acre, regardless of amount of damage.

Class B fires are those which cover an area of one-fourth acre to ten acres. Class C fires are those which cover an area over ten acres.

APPENDIX "F"

MEMO TO:

February 2, 1949.

Mr. P. F. Baillargeon,
Secretary,
Board of Transport Commissioners,
Union Station,
OTTAWA.

In accordance with your request of January 4th, 1949 attached hereto please find one original and four copies of the Bureau's portion of the annual report of the Board for the year ended December 31, 1948.

Your very truly,

G. A. SCOTT,
Director.

Attach. 5

BUREAU OF TRANSPORTATION ECONOMICS

Establishment

The primary purpose of the Bureau, to perform economic, accounting and statistical duties for the Board of Transport Commissioners, and, secondarily, to perform duties of a somewhat similar nature for the Air Transport Board, the Department of Transport and other departments and branches of the Government in the field of transportation, have been increasingly realized during the second year of the Bureau's operation. In 1947 the time of the Bureau was divided 58% for the Air Transport Board, 41% for the Board of Transport Commissioners and 1% for other Government departments. In 1948 the time was divided 50% for the Board of Transport Commissioners, 46% for the Air Transport Board and 4% for other Government departments. This shift in work necessitated several staff changes and reorganization of routine duties so as to facilitate the handling of increasing assignments. While additional positions were added to the Bureau's establishment, yet staff changes were such as to result in no significant over-all increase in staff, 1948 vis-a-vis 1947, the totals being 38 and 36 respectively.

During the past year a Transportation Library has been established in the Bureau and to date approximately 700 volumes, Government documents, and periodicals have been collected and catalogued. The Library has accumulated a great deal of valuable information on economic, statistical and accounting aspects of transportation, together with research reports and memoranda.

Railways

Beginning in 1948 the Bureau, in conjunction with the Traffic Department, entered upon a special survey of railway freight traffic movements in Canada. This survey, still under way, is based upon waybill analyses of domestic traffic terminating on certain selected dates believed to be reasonably indicative of normal traffic movements. It will provide for the Board data, heretofore un-

available, respecting, among other things, classification ratings, routings, rates and mileages for both carload and less-than-carload traffic.

Certain work of a preliminary nature was accomplished by the Bureau during 1948 with respect to accounting, financial and statistical matters of railways. In addition thereto, special reports dealing with revenues, expenditures, depreciation and maintenance were prepared. The collection, auditing and tabulation of financial and statistical data of railways was continued and monthly and quarterly reports were issued. Reports respecting the maximum carloading order and freight car additions and retirements were continued.

The preliminary tabulation of Canadian railway reports for 1948 indicates total revenues amounting to \$852,198,960 as compared with \$785,177,920 for 1947; an increase of \$67,021,040, or 8.5%. During the same period operating expenses amounted to \$782,522,253, a 13.3% increase over the 1947 total of \$690,281,049. The resulting net operating revenue is indicated as being \$69,676,707; a decrease of 26.2% vis-a-vis 1947. A summary tabulation of railway statistics since 1938 shows the following relationships:—

Year	Operating Revenues	Operating Expenses	Net Operating Revenue	Operating Ratio	Revenue Freight Ton-Miles	Revenue Passenger Miles
	\$	\$	\$	%	(000)	(000)
1938.....	336,833,400	295,705,638	41,127,762	87.8	26,834,697	1,783,178
1939.....	367,179,095	304,373,285	62,805,810	82.9	31,464,991	1,751,973
1940.....	429,142,659	335,287,503	93,835,156	78.1	37,898,196	2,176,468
1941.....	538,291,947	403,735,542	134,558,405	75.0	49,982,467	3,205,542
1942.....	663,610,570	485,783,584	177,826,986	73.2	56,153,953	4,989,296
1943.....	778,914,565	560,597,204	218,317,361	72.0	63,915,074	6,525,064
1944.....	796,636,786	634,774,021	161,862,763	79.7	65,928,079	6,873,188
1945.....	774,971,360	631,497,562	143,473,798	81.5	63,349,095	6,380,155
1946.....	718,501,764	623,529,472	94,972,292	86.8	55,310,308	4,648,558
1947.....	785,177,920	690,281,049	94,356,871	88.0	60,143,035	3,732,777
1948 (1).....	852,198,960	782,522,253	69,676,707	91.8	59,098,754	3,512,258

(1) Preliminary.

Waterways

As a result of an investigation made into the records of the four major water carriers operating in the Mackenzie River area, the Bureau prepared for the Board a uniform classification of balance sheet accounts as well as uniform balance sheet reporting forms for the use of these carriers.

A special economic report on the Canadian Merchant Marine was prepared and submitted to the Canadian Maritime Commission during the course of the year. This report was the result of an investigation into the economic aspects of a Canadian Merchant Marine. It presented those factors which were in 1948, in large measure, determining the world shipping situation; it indicated their possible trends during the next three or four years and evaluated their possible impact on a Canadian Merchant Marine.

Another report pertaining to waterways dealt with traffic on the Great Lakes. It indicated the trend of such traffic during past years and significant changes during and since the war years.

Highways

A special study of the Alaska Highway was undertaken and a report issued. The purpose of the report was to appraise the probable net annual cost of main-

taining the Alaska Highway as an artery of commerce for Northwestern Canada, as distinct from its employment as an instrument of national security. The report included a description of the Alaska Highway, an estimate of annual maintenance cost, the highway operations, freight traffic analysis, an estimate of potential freight and passenger traffic, estimated revenues, and the economic effects of the highway on Northwestern Canada.

BUREAU OF TRANSPORTATION ECONOMICS
February 8, 1949

APPENDIX "G"

STATEMENT SHOWING TOTAL NUMBER OF APPLICATIONS MADE TO THE BOARD UNDER THE VARIOUS SECTIONS OF THE RAILWAY ACT,
ALSO COMPLAINTS AND REPORTS FILED, FOR THE YEAR ENDED DECEMBER 31ST, 1948

Sections of the Railway Act	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Agreement for sale, Secs. 151-3.....	0	1	0	1	0	0	0	0	0	0	0	0	2
Traffic Agreement, Sec. 154.....	2	0	0	0	0	0	1	1	1	0	1	0	6
General Powers, Sec. 162.....	0	1	0	1	0	0	1	0	1	0	0	0	3
Gas & Gasoline Pipes, Sec. 162.....	2	0	0	1	0	0	0	0	0	1	0	0	3
Steam Pipes, Sec. 162.....	0	0	0	1	0	0	0	0	0	0	0	0	1
Plans, Profiles, Secs. 168-9.....	0	0	0	0	0	0	0	0	0	0	0	0	1
Railways as constructed, Sec. 175.....	0	1	1	0	1	1	0	0	0	0	2	2	7
Deviations, Changes, Secs. 165A-178.....	1	1	1	1	1	2	0	2	2	2	1	1	13
Removal of Stations, Sec. 179.....	1	0	0	1	1	0	0	0	0	0	0	0	3
Branch Line, Secs. 180-7.....	1	1	0	1	0	4	1	4	5	5	1	1	26
Removal of Industrial Spurs, Secs. 187-398.....	3	2	3	6	3	1	4	1	1	2	2	2	12
Station Buildings, Sec. 188.....	0	0	0	0	0	1	1	2	0	0	0	1	1
Station Agents, Sec. 188.....	0	0	0	0	0	1	0	0	0	1	1	0	3
Operation of trains over Sidings, Sec. 193.....	1	0	0	0	0	1	1	1	0	1	0	0	4
Mining under yards of Railway, Sec. 196.....	3	1	3	0	1	2	2	0	0	1	0	0	15
Viaducts, Secs. 249-51.....	5	4	6	8	5	9	2	6	20	6	10	7	84
Stations Destroyed by fire.....	3	1	3	1	1	4	2	4	2	2	5	1	33
Subways, Secs. 249-51.....	0	0	0	0	0	1	1	0	0	0	3	0	16
Bridges, Secs. 249-51.....	1	0	0	0	0	2	0	0	0	0	0	0	4
Clearances, Secs. 250-1.....	0	0	0	1	1	2	1	0	0	0	0	0	4
Interlocking Appliances, Secs. 252-4.....	0	0	0	1	1	0	0	0	0	0	0	0	2
Railway Crossings & Junctions, Secs. 252-4.....	3	16	11	12	3	10	6	9	12	15	10	15	122
Protection at Crossings, Sec. 257.....	40	23	36	16	37	32	40	27	33	24	16	26	350
Highway Diversions, Sec. 257.....	0	0	0	2	0	1	0	1	0	0	0	0	3
Ditches, Drains, Sec. 268.....	0	1	1	1	0	0	0	0	1	0	0	0	4
Culverts, Sec. 269.....	0	0	1	1	0	0	0	0	0	0	0	0	3
Sewers, Sec. 269.....	0	1	0	0	0	5	3	3	2	2	1	3	26
Farm & Private Crossings, Secs. 272-3.....	0	3	0	1	3	5	3	2	0	0	0	0	11
Cattle guards & Cattle pass, Sec. 274.....	1	5	1	5	0	5	0	2	0	19	59	24	121
Opening of Railways, Secs. 276-7.....	0	0	0	0	0	46	41	62	46	65	68	58	673
Investigations submitted, Sec. 286.....	72	56	65	46	48	243	272	270	257	258	250	310	2,933
Accident Reports, Sec. 286.....	215	219	216	208	215	0	0	0	1	0	0	0	2
Operation & Equipment, Sec. 287.....	0	1	1	2	1	0	0	0	1	1	2	0	6
Rolling Stock, Secs. 298-301.....	2	0	1	2	0	1	0	1	1	1	2	1	11
Adjustment in Rates.....	2	1	1	1	2	1	0	2	0	2	2	2	12
Train Service, Secs. 302-4.....	2	3	0	0	2	1	1	2	2	2	1	0	13
Whistling by Locomotives, Sec. 308.....	1	3	0	1	0	2	1	1	4	6	0	7	28
Accommodation for Traffic, Secs. 312-3.....	1	3	2	0	0	0	0	0	0	0	0	0	1
Freight Classification, Sec. 322.....	0	0	0	0	1	0	0	0	0	0	0	0	3
Filing of Tariffs, Secs. 323-7.....	0	0	0	2	1	0	0	0	0	0	0	0	3
Disallowance of Tariffs, Sec. 325.....	0	0	0	0	0	0	0	1	0	0	0	1	2

[illegible]

APPENDIX "H"

GENERAL ORDER No. 706

In the matter of rules, requirements and specifications in regard to the crossings of wire supply lines and wire communication lines:

Case No. 4704

FRIDAY, the 9th day of January, A.D. 1948.

J. A. CROSS, K.C., *Chief Commissioner.*

HUGH WARDROPE, *Assistant Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

J. A. STONEMAN, *Commissioner.*

G. A. STONE, *Commissioner.*

F. M. MACPHERSON, *Commissioner.*

Upon the recommendation of the Director of Engineering of the Board—

It is ordered:

1. That Canadian Standards Association C22.3 No. 1 (C) dated April, 1947, containing rules, requirements and specifications for the construction of supply lines crossing communication lines, on file with the Board under Case No. 4704, be, and it is hereby, approved.

2. That in the event of contradiction between the provisions of the Railway Act and the said rules, requirements and specifications, the provisions of the Railway Act shall prevail.

3. That General Order No. 546, dated November 21, 1935, be, and it is hereby, rescinded.

J. A. CROSS,
Chief Commissioner.

GENERAL ORDER No. 707

In the matter of the marshalling of equipment on passenger trains:

File No. 25657

MONDAY, the 12th day of January, A.D. 1948.

J. A. CROSS, K.C., *Chief Commissioner.*

HUGH WARDROPE, *Assistant Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

J. A. STONEMAN, *Commissioner.*

G. A. STONE, *Commissioner.*

F. M. MACPHERSON, *Commissioner.*

Upon the recommendation of the Director of Operation of the Board—

It is ordered: That the following rules for marshalling of equipment of passenger trains be, and they are hereby, prescribed for the observance of every railway company subject to the jurisdiction of the Board:

RULES

1. There shall be a buffer car between the locomotive and the first coach carrying passengers. In local and mixed train services a combination baggage or express car with passenger compartment shall be considered a buffer car within the meaning of this rule, if the baggage or express end of such car is next to the locomotive.

2. No wooden mail, express or baggage car occupied by any employee or other person shall be marshalled between the locomotive and steel equipment, or between other steel units.

3. All passenger trains shall be marshalled in such a manner that no wooden coaches carrying passengers are placed between cars of steel construction and that all wooden coaches are placed on rear of the train.

4. A car or coach with steel underframe shall not be deemed to be a wooden car or coach within the meaning of this Order.

J. A. CROSS,
Chief Commissioner.

TRANSPORT COMMISSIONERS OF CANADA

GENERAL ORDER No. 708

In the matter of the General Train and Interlocking Rules approved by General Order No. 42:

File No. 25434

THURSDAY, the 22nd day of January, A.D. 1948.

J. A. CROSS, K.C., *Chief Commissioner.*

HUGH WARDROPE, *Assistant Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

J. A. STONEMAN, *Commissioner.*

G. A. STONE, *Commissioner.*

F. M. MACPHERSON, *Commissioner.*

Upon the application of the Railway Association of Canada, and upon the recommendation of the Board's Director of Operation—

It is ordered that the first two paragraphs of Rule 102 of the said General Train and Interlocking Rules and the first two paragraphs of Rule 103 of the Operating Rules of the Canadian National Railways approved by Order No. 42252 dated February 27, 1929, be struck out and the following substituted therefor:

“When cars are pushed by an engine (except when shifting and making up trains in yards, where there are no public highway crossings at rail level, or where there are public highway crossings at rail level adequately protected by gates, or otherwise) a man must take a position on the leading car for the purpose of giving signals necessary to such movement.

Whenever in any city, town, or village, cars not headed by an engine, or its tender, are passing over or along a highway at rail level, which is not adequately protected by gates or otherwise, a man must be stationed on the leading car to warn persons standing on, or crossing, or about to cross, the track.”

J. A. CROSS,

Chief Commissioner.

GENERAL ORDER No. 709

In the matter of General Order of the Board No. 598, dated October 11, 1940, authorizing, for the observance of the railway companies subject to the jurisdiction of the Board which accept explosives and other dangerous articles for carriage, the revised Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight and Specifications for Shipping Containers:

File No. 1717.87.37

THURSDAY, the 19th day of February, A.D. 1948.

J. A. CROSS, K.C., *Chief Commissioner.*

HUGH WARDROPE, *Assistant Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

J. A. STONEMAN, *Commissioner.*

G. A. STONE, *Commissioner.*

F. M. MACPHERSON, *Commissioner.*

Upon reading the submissions filed; and upon the report and recommendation of the Director of Operation of the Board—

It is ordered:

1. That Ammonium Nitrate Fertilizer and/or Nitrate of Ammonia Fertilizer be added to and included in the Commodity List of Principal Explosives and Other Dangerous Articles included in Regulations of Board of Transport Commissioners for Canada by Freight.

2. That Ammonium Nitrate Fertilizer and/or Nitrate of Ammonium Fertilizer may be packed in bags not exceeding 200 pounds net weight, moisture proof, made tight against sifting and of strength not less than bags made of 8 ounce burlap.

3. That each package or bag containing Ammonium Nitrate Fertilizer and/or Nitrate of Ammonium Fertilizer must be plainly marked with proper shipping name as shown in the commodity list (see Clause (1) hereof).

4. That each package or bag containing Ammonium Nitrate Fertilizer and/or Nitrate of Ammonium Fertilizer must be conspicuously labelled with "Yellow Label", described in paragraph 300-2, page 56 of the said Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight.

J. A. CROSS,
Chief Commissioner.

GENERAL ORDER No. 710

In the matter of the speed of engines running tender first.

File No. 21173

FRIDAY, the 12th day of March, A.D., 1948.

J. A. CROSS, K.C., *Chief Commissioner.*

HUGH WARDROPE, *Assistant Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

J. A. STONEMAN, *Commissioner.*

G. A. STONE, *Commissioner.*

F. M. MACPHERSON, *Commissioner.*

Upon the recommendation of the Director of Operation of the Board—

It is ordered:

1. That on railways subject to the jurisdiction of the Board, engines running tender first, other than suburban tank engines equipped with pilot on tender, shall not exceed a speed of twenty-five miles an hour.

2. That the directions contained in Board's Circular No. 103, dated January 3, 1913, be, and they are hereby, rescinded.

J. A. CROSS,
Chief Commissioner.

GENERAL ORDER No. 711

In the matter of General Order of the Board No. 598 dated October 11, 1940, authorizing for the observance of the railway companies subject to the jurisdiction of the Board which accept explosives and other dangerous articles for carriage, the revised Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight and Specifications for Shipping Containers:

File No. 1717.88.22

SATURDAY, the 13th day of March, A.D. 1948.

J. A. CROSS, K.C., *Chief Commissioner.*

HUGH WARDROPE, *Assistant Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

J. A. STONEMAN, *Commissioner.*

G. A. STONE, *Commissioner.*

F. M. MACPHERSON, *Commissioner.*

Upon the report and recommendation of the Director of Operation of the Board--

It is ordered that the said regulations for the transportation of explosives and other dangerous articles by freight, and specifications for shipping containers be, and they are hereby, amended by striking out paragraph numbered (8b) of Specification 4(b) on page 84 thereof, and substituting therefor the following:

"8(b). Longitudinal seams in shells: By forged lap welding or by copper or silver alloy brazing; the melting point of the brazing material must be in excess of 1,000°F. If a liquid flux is used it may be applied to contacting surfaces of a lapped joint before assembly. When brazed the plate edge must be lapped at least eight times the thickness of plate, laps being held in position, substantially metal to metal, by riveting or electric spot welding; brazing must be done by placing flux and brazing material on one side of seam and applying heat until this material shows uniformly along the seam on the other side."

J. A. CROSS,
Chief Commissioner.

GENERAL ORDER No. 712

In the matter of the Regulations for the Transportation by Express of Acids, Compressed Gases, Inflammables, Oxidizing Substances, Explosives, etc., and Specifications for Shipping Containers:

File No. 1717.12.195

TUESDAY, the 6th day of April, A.D. 1948.

HUGH WARDROPE, *Assistant Chief Commissioner.*J. A. STONEMAN, *Commissioner.*

Upon the recommendation of the Director of Operation of the Board—

It is ordered that the said Regulations be, and they are hereby, amended, as follows:—

LIST OF EXPLOSIVES AND OTHER DANGEROUS ARTICLES

Commodity list, Page 17—Amend list, as follows:

Article	Classed as	Exemptions and packing (see sec.)	Label required if not exempt	Maximum quantity in one outside package by express
(Add) Radioactive materials.....	Poison D	3A. 171½-3 171½-4 171½-5	176(1)I. Red 176(1)2. Blue	2000 Millicuries (see Sec. 171½-2)

PART 3

REGULATIONS APPLYING TO SHIPPERS

Add new sec. 3A following sec. 3, page 20, to read as follows:

- 3A. Canadian Atomic Energy Control Board Shipments. Shipments of radioactive materials, made by the Canadian Atomic Energy Control Board or under its direction or supervision, which are *escorted* by personnel specially designated by the Canadian Atomic Energy Control Board, are exempt from these regulations.

Add new sec. 18 (a) 1. to follow immediately after 18 (a), page 21, to read as follows:

EMPTY CONTAINERS

- 18 (a) 1. All containers and accessories which have been used for shipments of radioactive materials when shipped as empty must be sufficiently free of radioactive contamination so as to conform to the conditions of Sec. 18 (a), and subsections (a), (b) and (c) of section 171½-3.

POISONOUS ARTICLES

Add Class D. to Sec. 140, page 39, as follows:

- (d) Radioactive materials, Poison—Class D.

Add new section. 171½ following Sec. 171, page 42 as follows:

171½ RADIOACTIVE MATERIALS, CLASS D POISON, RADIOACTIVE MATERIALS LABEL

171½-1. Radioactive Material is any material or combination of materials that spontaneously emits ionizing radiation. For the purpose of these regulations radioactive materials are divided into three groups according to the type of rays emitted at any time during transportation, as follows:—

(a) Group I. Radioactive materials that emit gamma rays only or both gamma and electrically charged corpuscular rays.

(b) Group II. Radioactive materials that emit neutrons and either or both the types of radiation characteristic of Group I materials.

(c) Group III. Radioactive materials that emit electrically charged corpuscular rays only, i.e. alpha or beta, etc.

171½-2. Not more than 2,000 millicuries of radium, polonium, or other members of the radium family of elements, and not more than that amount of any other radioactive substance which disintegrates at the rate of 100,000 million ($10''$) atoms per second may be packed in one outside container for shipment via rail express, except by special arrangement and under conditions approved by the Board.

NOTE: For purposes of these regulations one millicurie is that amount of any radioactive material which disintegrates at the rate of 37 million atoms per second.

EXEMPTIONS

171½-3. Radioactive materials are exempt from prescribed packing, marking and labelling requirements provided they fulfil all of the following conditions:

(a) The package must be such that there can be no leakage of radioactive material under conditions normally incident to transportation.

(b) The package must contain not more than 0.1 millicuries of radium, or polonium or not more than that amount of strontium 89, strontium 90, or barium 140 which disintegrates at a rate of 5 million atoms per second; or not more than that amount of any other radioactive substance which disintegrates at a rate of 50 million atoms per second.

(c) The package must be such that no significant alpha, beta or neutron radiation is emitted from the exterior of the package and the gamma radiation at any surface of the package must be less than 10 milliroentgens for 24 hours.

171½-4. Manufactured articles other than liquids such as instrument or clock dials of which radioactive materials are a component part, and luminous compounds, when securely packed in strong outside containers are exempt from specification packing, marking, and

labelling requirements provided the gamma radiation at any surface of the package is less than 10 milliroentgens in 24 hours.

PACKING AND SHIELDING

1711½-5. (a) Radioactive materials that present special hazards due to their tendency to remain fixed in the human body for long periods of time (i.e. radium, plutonium, and radioactive strontium, etc.), must, in addition to the packing hereinafter prescribed, be packed in inside metal containers specification 2R, or other container approved by the Board.

(b) All radioactive materials must be so packed and shielded that the degree of fogging of undeveloped film under conditions normally incident to transportation (24 hours at 15 feet from the package) will not exceed that produced by 11.5 milliroentgens of penetrating gamma rays of radium filtered by ½ inch of lead.

(c) The design and preparation of the package must be such that there will be no significant radioactive surface contamination of any part of the container.

(d) The smallest dimension of any outside shipping container for radioactive materials must not be less than 4 inches.

(e) All outside shipping containers must be of such design that the gamma radiation will not exceed 200 milliroentgens per hour or equivalent at any point of readily accessible surface. Containers must be equipped with handles and protective devices when necessary in order to satisfy this requirement.

(f) The outside shipping container for any radioactive material unless specifically exempt by Secs. 1711½-3 or 1711½-4 must be a wooden box Spec. 15A or 15B, or a fibre-board box Spec. 12B, except that equally efficient containers may be used when approved by the Board.

(g) Radioactive materials Group I, liquid, solid or gaseous, must be packed in suitable inside containers completely surrounded by a shield of lead or other suitable material of such thickness that at any time during transportation the gamma radiation at one meter (39.3 inches) from any point on the radioactive source will not exceed 10 milliroentgens per hour. The shield must be so designed that it will not open or break under conditions incident to transportation. The minimum shielding must be sufficient to prevent the escape of any primary corpuscular radiation to the exterior of the outside shipping container.

(h) Radioactive materials Group II, liquid, solid, or gaseous, must be packed in suitable inside container completely shielded so that at any time during transportation the radiation measured at right angles to any point on the long axis of the shipping container will not exceed the following limits:

(a) Gamma radiation of 10 mrhm.

(b) Electrically charged corpuscular radiation which is the physical equivalent (see Note) of 10 mrhm. of gamma radiation.

(c) Neutron radiation which is the physical equivalent (see Note) of 2 mrhm. of gamma radiation.

- (d) If more than one of the types of radiation named in paragraphs (a), (b), and/or (c) is present, the radiation of each type must be reduced by shielding so that the total does not exceed the equivalent of paragraphs (a), (b) or (c).

(h) 2. The shielding must be designed so as to maintain its efficiency under conditions normally incident to transportation and must provide personnel protection against fast or slow neutrons and all other ionizing radiation originating in the radioactive materials or any part of the aggregate constituting the complete package.

NOTE: For purposes of these regulations the "physical" equivalent of a ROENTGEN is that amount of radiation that would be absorbed in tissue to the extent of 83 ergs per gram. (mrhm. is an abbreviation for milliroentgens per hour at 1 meter (39.3 inches)).

(i) Liquid radioactive materials Groups I, II, or III must in addition, be packed in tight glass, earthenware, or other suitable inside containers. The inside containers must be surrounded on all sides and within the shield by an absorbent material sufficient to absorb the entire liquid contents and of such nature that its efficiency will not be impaired by chemical reaction with the contents. If the container is packed in a metal container Specification 2R or other container approved by the Board, the absorbent cushioning is not required.

(j) Radioactive materials Group III, liquid or solid, must be packed in suitable inside containers completely wrapped and/or shielded with such material as will prevent the escape of primary corpuscular radiation to the exterior of the shipping container, and secondary radiation at the surface of the container must not exceed 10 milliroentgens per 24 hours, at any time during transportation.

NOTE: In determining compliance with requirements of paragraphs e, g, h, and j measurements of radiation must be made with a LANDSVERK—WOLLAN ELECTROMETER MODEL L—100 or equally efficient standardized meter.

- 171½-6. Each outside container of radioactive material Group I or II, unless exempt by Secs. 171½-3 and 171½-4, must be labelled with a properly executed label as described in Sec. 176 (1) I.
- 171½-7. Each outside container of radioactive material Group III, unless exempt by Secs. 171½-3 and 171½-4, must be labelled with a properly executed label as described in Sec. 176 (1) 2.

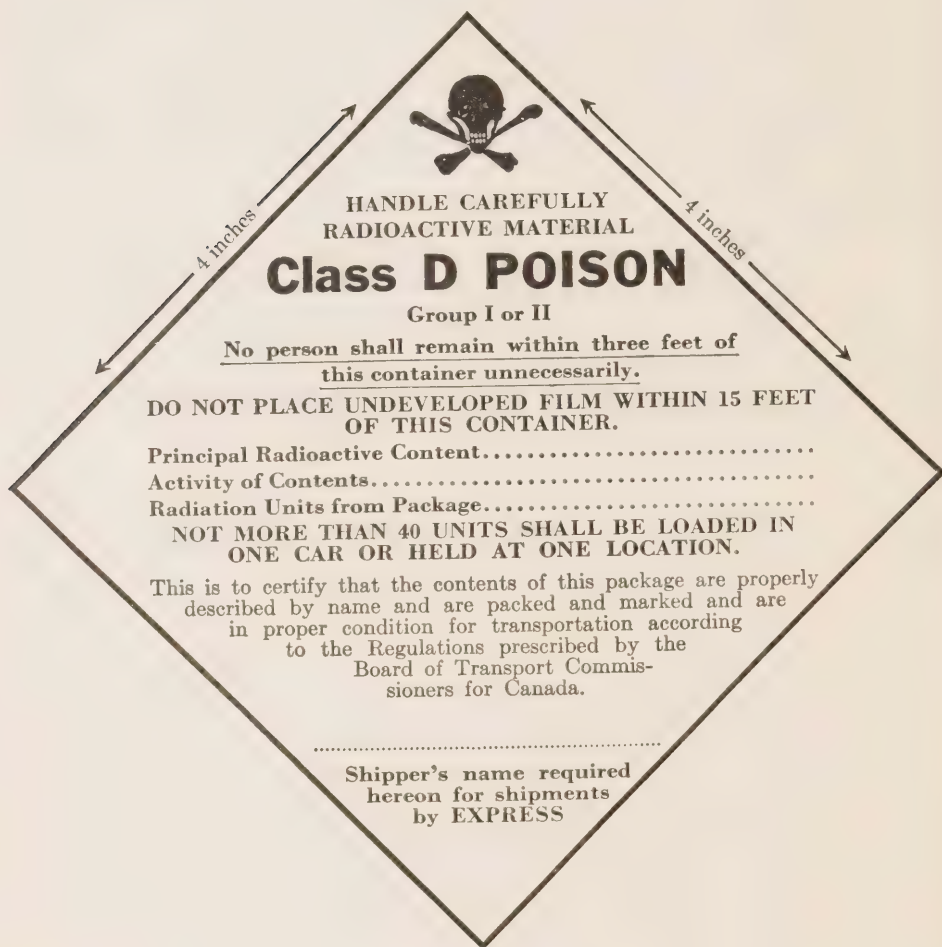
MARKING AND LABELLING

Add new Section 174 (h) 1. and 174 (h) 2. page 43, as follows:—

- 174 (h) 1. "Radioactive materials" label as described in Sec. 176 (1) I, on containers of Class D Poisons, Group I and II except when exempted by Secs. 171½-3 and 171½-4.
- 174 (h) 2. "Radioactive materials" label as described in Sec. 176 (1) 2, on containers of Class D Poisons, Group III, except when exempted by Secs. 171½-3 and 171½-4.

Add new Sec. 176 (1) I. page 45, as follows:—

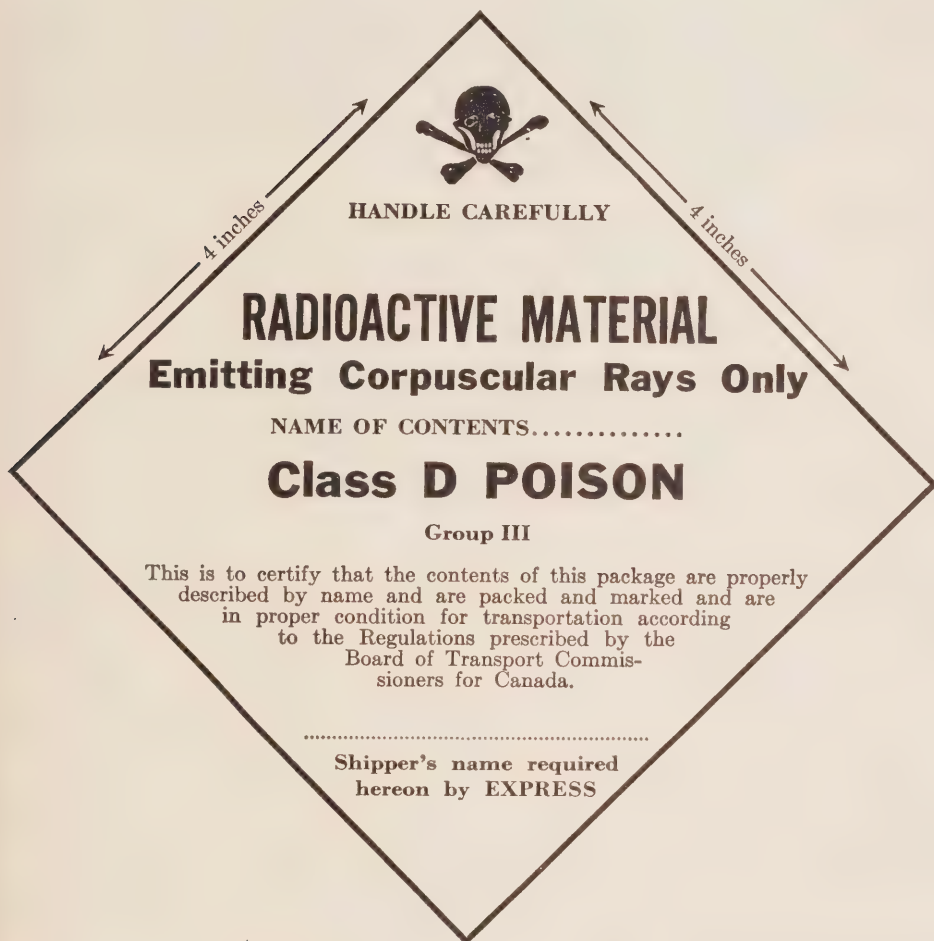
- 176 (1) 1. Labels for radioactive materials (Class D Poisons) Group I and Group II must be of diamond shape, white in colour, and with each side 4 inches long. Printing must be in red letters inside of a red-line border measuring $3\frac{1}{2}$ inches on each side, as shown below:—



This label must
be duly executed
by the shipper.

Add new Sec. 176 (1) 2. page 45, as follows:

- 176 (1) 2. Labels for radioactive materials (Class D Poisons) Group III must be of diamond shape, white in colour, and with each side 4 inches long. Printing must be in blue letters inside of a blue-line border measuring $3\frac{1}{2}$ inches on each side, and as shown below:—



PART 4

REGULATIONS APPLYING PARTICULARLY TO CARRIERS
BY EXPRESS

Add to Sec. 182, Handling packages, page 47, as follows:—

182 (h). A container of radioactive material bearing red label must not be placed in cars, depots or other places closer than 3 feet to an area which may be continuously occupied by passengers, employees, or shipments of animals. When more than one such container is present, the distance from occupied areas must be computed from the table in paragraph 182 (k) by adding the number of units shown on labels on the containers.

182 (i). In a combination car carrying passengers and/or express shipments, a container of radioactive material must not be placed closer than 3 feet to the dividing partition. For more than one such container the distance must be computed by method described in paragraph 182 (k).

182 (j). A container of radioactive material, red label, must not be placed closer than 15 feet to any package containing undeveloped film. If more than one such container is present the distance must be computed from the table in paragraph 182 (k) by adding the number of units shown on the labels on the packages.

182 (k).

TABLE

Total number of units	Minimum distance in feet to nearest undeveloped film	Distance in feet to area that may be continuously occupied by passengers or employees	Distance in feet from dividing partition of a combination car
1 to 10	15	3	3
11 to 20	20	4	4
21 to 30	25	5	5
31 to 40	30	6	6

NOTE 1: The Distance in the table must be measured from the nearest point of the radioactive container or containers.

NOTE 2: One unit equals 1 milliroentgen per hour at 1 meter for hard gamma radiation or the amount of radiation which has the same effect on sensitive film as 1 mrlm. of hard gamma rays of radium filtered by $\frac{1}{2}$ inch of lead.

182 (l). Not more than 40 units of radioactive material (red label) shall be transported in any car or stored in a depot at one time.

182 (m). All containers of radioactive material (red label) must be carried by the handles when handles are provided.

182 (n). Radioactive materials (Class D Poisons) must not be loaded in the same car with samples of explosives.

- 182 (o). If for any reason, a package containing radioactive material (red label) would otherwise remain in the same building for a period longer than 24 hours, it must be moved to a different location after each 24 hours.
- 182 (p). In case of fire, wreck, breakage or unusual delay involving any shipment of radioactive material the package or material should be segregated as far as possible from human contact. The Board, shipper and the Bureau of Explosives should be immediately notified. In case of breakage of a package containing radioactive material and when it appears likely that the inside container may have been damaged, great care must be exercised to prevent contact with inhalation or any other means of the radioactive material entering the body.
-

PART 5

SHIPPING CONTAINER SPECIFICATIONS

Add: SPECIFICATION 2R.

INSIDE CONTAINERS—METAL TUBES

1. Size.—Outside diameter of the tube must not exceed 3 inches and length must not exceed 8 inches exclusive of flanges, or handling or fastening devices.
2. Manufacture.—Stainless steel, malleable iron, or brass having a wall thickness of not less than $\frac{3}{32}$ inches for diameter up to 2 inches and not less than $\frac{1}{8}$ inch for diameter up to three inches. The ends of the tube must be fitted with screw type closures except that one end of the tube may be permanently closed by a welded or brazed plate. Welded or brazed side seams are authorized.
3. Welding and Brazing.—Must be done in a workmanlike manner and must be free from defects.
4. Closing Devices.—Must be of screw type. Number of threads per inch must be not less than United States Standard Pipe threads. Caps or plugs are authorized.

And it is further ordered that General Order No. 701, dated the 20th day of October, 1947, be, and it is hereby rescinded.

HUGH WARDROPE,
Assistant Chief Commissioner.

TRANSPORT COMMISSIONERS OF CANADA

GENERAL ORDER No. 713

THE BOARD OF TRANSPORT COMMISSIONERS FOR CANADA

In the matter of the Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight and specifications for shipping containers.

File No. 1717.104

MONDAY, the 5th day of April, A.D. 1948.

HUGH WARDROPE, *Assistant Chief Commissioner.*J. A. STONEMAN, *Commissioner.*

Upon the recommendation of the Director of Operation of the Board—

It is ordered that the said Regulations be, and they are hereby, amended as follows:

Commodity List, Page 12:—Amend list as follows:

Article	FREIGHT			
	Classed as	Packing See Par.	Label See Par.	For Exemptions See Par.
(Add) Radioactive materials.	Poison D	—	Placard required— Par. 421-1	294-3

PART 2A

REGULATIONS APPLYING TO SHIPPERS

Add new par. 22-1A, following par. 22-1, page 17, to read as follows:—

22-1A. All containers and accessories which have been used for shipments of radioactive materials when shipped as empty must be sufficiently free of radioactive contamination so as to conform to the conditions of paragraph 22-1 and sub-paragraphs (1), (2) and (3) of paragraph 294-3.

PART 2C

POISONOUS ARTICLES

Add Class D to par. 230, page 49, as follows:—

Radioactive materials, Poison—Class D.

Add new pars. 294-1, 294-2 and 294-3 following par. 293-4, page 54, to read as follows:—

RADIOACTIVE MATERIAL

CLASS D POISON

RADIOACTIVE MATERIAL LABEL

294-1. Radioactive material is any material or combination of materials that spontaneously emits ionizing radiation. For the purpose of these regulations radioactive materials are divided into three groups according to the type of rays emitted at any time during transportation as follows:

- (1) Group I. Radioactive materials that emit gamma rays only or both gamma and electrically charged corpuscular rays.
- (2) Group II. Radioactive materials that emit neutrons and either or both the types of radiation characteristic of Group I materials.
- (3) Group III. Radioactive materials that emit electrically charged corpuscular rays only, i.e., alpha or beta, etc.

294-2. Radioactive materials must not be offered for transportation *via* rail freight except as specifically provided in paragraph 294-3, or except by special arrangements and under conditions approved by the Board.

NOTE: For purposes of these regulations one millicurie is that amount of any radioactive material which disintegrates at the rate of 37 million atoms per second.

EXEMPTIONS

294-3 (a) Radioactive materials are exempt from prescribed packing, marking and labelling requirements provided they fulfil all of the following conditions:

- (1) The package must be such that there can be no leakage of radioactive material under conditions normally incident to transportation.
- (2) The package must contain not more than 0.1 millicuries of radium, or polonium, or that amount of strontium 89, strontium 90, or barium 140 which disintegrates at a rate of 5 million atoms per second; or not more than that amount of any other radioactive substance which disintegrates at a rate of 50 million atoms per second.
- (3) The package must be such that no significant alpha, beta or neutron radiation is emitted from the exterior of the package and the gamma radiation at any surface of the package must be less than 10 milliroentgens for 24 hours.

294-3 (b) Manufactured articles other than liquids such as instrument or clock dials of which radioactive materials are a component part, and luminous compounds, when securely packed in strong outside containers are exempt from specification packing, marking, and labelling requirements provided the gamma radiation at any surface of the package is less than 10 milliroentgens in 24 hours.

- 294-3 (c) Radioactive materials such as ores, residues, etc., of low activity packed in strong tight containers are exempt from specification packing and labelling requirements for shipment in car load lots *via* rail freight provided the gamma radiation or equivalent will not exceed 10 milliroentgens per hour at a distance of 5 feet from any surface of the car. There must be no loose radioactive material in the car, and the shipment must be braced so as to prevent leakage or shift of lading under conditions normally incident to transportation. The car must be placarded by the shipper as prescribed in paragraphs 415-2G and 421-1 of these regulations. Shipments must be loaded by consignor and unloaded by consignee.

PART 3B

LOADING PACKAGES INTO CARS

LOADING PACKAGES OF OTHER DANGEROUS ARTICLES INTO CARS

Add new paragraphs 340-1A, 340-2A, 340-3A and 340-4A following paragraph 340-2, page 63, to read as follows:—

RADIOACTIVE ORES, RESIDUES, AND SIMILAR MATERIAL

- 340-1A. Shipments of radioactive ores, residues, or similar material as provided in par. 294-3 must be so loaded as to avoid spillage and scattering of loose material.
- 340-2A. The amount of radioactive material loaded in a car must be limited as provided in par. 294-3.
- 340-3A. No person shall remain in a car containing radioactive material unnecessarily and the shipper must furnish the carrier with such information and equipment as is necessary for the protection of the carrier's employees (two or one).
- 340-4A. Any loose radioactive material must be removed from the car and placed in a closed container in a segregated location and held for instructions from the Board, Shipper or the Bureau of Explosives.

LOADING AND STORAGE CHART OF EXPLOSIVES AND OTHER DANGEROUS ARTICLES

Amend headline and side line description of paragraph 341, page 64 (Loading and storage chart), by adding column 14, as follows:—

Add. Radioactive materials (Class D Poisons).

Add. "X" to columns *a, b, c, d, e, f* and *g*, both horizontally and perpendicularly opposite entry "Radioactive materials (Class D Poisons)."

PART 3C

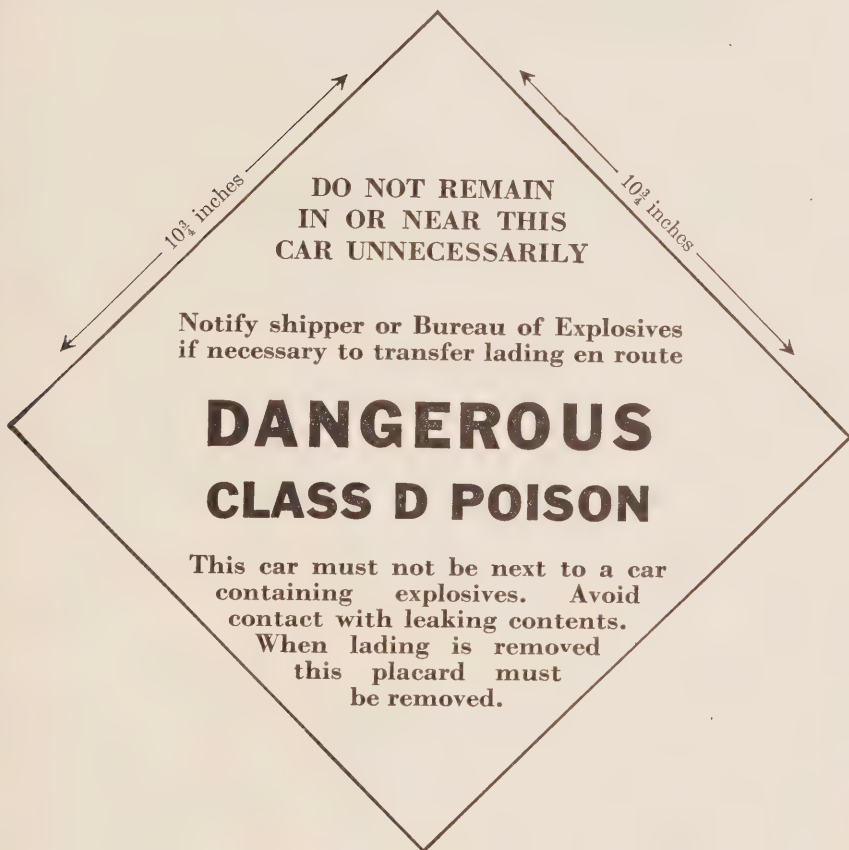
PLACARDS ON CARS

Add par. 415-2G. following par. 415-2F. page 65, as follows:

- 415-2G DANGEROUS placards as prescribed in par. 421-1 must be applied to cars containing shipments of CLASS D poisons as provided in paragraphs 294-2 and 294-3.

Add 421-1. The "Dangerous" placard for Class D poisons must be of diamond shape measuring $10\frac{3}{4}$ inches on each side, and must bear the wording in red letters as shown in the following cut:—

Dangerous Placard for Class D Poisons
(Reduced size)



TRANSPORT COMMISSIONERS OF CANADA

PART 3D

UNLOADING FROM CARS
CLEANING CARS

Add. par. 440-4 following par. 440-3, page 68, as follows:—

- 440-4. Any car which has contained radioactive material must be thoroughly cleaned by the consignee in such a manner as to remove all radioactive material from the car, and a certificate to this effect must be furnished the local agent of the railway company before the car is returned to the carrier.

PART 3E

HANDLING BY CARRIERS BY RAIL
HANDLING CARS

POSITION IN TRAIN OF CARS CONTAINING CLASS D POISON

Add. par. 467-5A (1). following par. 467-5A, page 71, as follows:—

- 467-5A (1). In a freight train or mixed train either standing or during transportation thereof, a car placarded "Dangerous—Class D Poison" must not be handled next to cars placarded "Explosives" or next to carload shipments of undeveloped film.

LEAKING PACKAGES OF ACID OR POISON
CLASS D POISONS

Add. par. 483-3. (a) & (b) following par. 483-2, page 73, as follows:

- 483-3 (a). In event of breakage of container, wreck, fire or unusual delay involving cars placarded "Dangerous—Class D Poison" as prescribed in par. 415-2G, the car and any loose radioactive material must be isolated as far as possible from danger of human contact and no persons must be allowed to remain close to the car or contents needlessly until qualified persons are available to supervise handling. The Board, Shipper and the Bureau of Explosives should be notified immediately.

- (b) Cars, buildings, areas, or equipment in which Class D Poisons have been spilled must not be again placed in service or occupied until decontaminated by qualified persons.

HUGH WARDROPE,
Assistant Chief Commissioner.

GENERAL ORDER No. 714

In the matter of the application of the Railway Association of Canada for an amendment to the Regulations for the Inspection and Testing of Air Reservoirs other than on Locomotives, prescribed by General Order No. 576:

File No. 23189.1.1.

WEDNESDAY, the 14th day of April, A.D. 1948

J. A. CROSS, K.C., *Chief Commissioner.*

HUGH WARDROPE, *Assistant Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

J. A. STONEMAN, *Commissioner.*

Upon the recommendation of the Director of Operation of the Board—

It is ordered that the Regulations for the Inspection and Testing of Air Reservoirs other than on Locomotives, as prescribed by General Order No. 576, be, and they are hereby, amended by striking out paragraph numbered 6 of the said Regulations and substituting the following therefor:

“6. Hydrostatic Test.—

- (a) Every air reservoir, except those covered in Clause “B”, before being placed in service, and at least every twelve months thereafter, must be hydrostatically tested to a pressure at least twenty-five per cent greater than the authorized working pressure.*
- (b) Every air reservoir on air dump cars covered by this Order, before being placed in service and at least once in each five years thereafter, must be hydrostatically tested to a pressure at least twenty-five per cent greater than authorized working pressure except that reservoirs manufactured of corrosion resistant steel may be tested once in each ten-year period following their initial test.*
- (c) Hot water should be used, where practicable, in testing all reservoirs.”*

J. A. CROSS,
Chief Commissioner.

GENERAL ORDER No. 715

*In the matter of fences on highway approaches to railway crossings;
And in the matter of Section 266 of the Railway Act, 1919, as amended by 11
Geo. VI, Chap. 70:*

File No. 30245

WEDNESDAY, the 5th day of May, A.D. 1948.

J. A. CROSS, K.C., *Chief Commissioner.*HUGH WARDROPE, *Assistant Chief Commissioner.*J. A. STONEMAN, *Commissioner.*G. A. STONE, *Commissioner.*F. M. MACPHERSON, *Commissioner.*

Upon the recommendation of the Director of Engineering of the Board—

It is ordered that all fences on the sides of the approaches by which any highway is carried over or under any railway, or across it at rail level, heretofore made and maintained as required by Section 266 of the Railway Act as in effect prior to July 17, 1947, and in accordance with any order or orders of the Board relating thereto, are hereby approved.

J. A. CROSS,
Chief Commissioner.

GENERAL ORDER No. 716

In the matter of the regulations governing the location and operation of loading racks, unloading standards or points, marine terminals, storage tanks, pipe lines, refineries and any installations or works for the handling, manufacturing, processing and storing of inflammable liquids.

File No. 28638.2

MONDAY, the 10th day of May, A.D. 1948.

J. A. CROSS, K.C., *Chief Commissioner.*HUGH WARDROPE, *Assistant Chief Commissioner.*A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*J. A. STONEMAN, *Commissioner.*F. M. MACPHERSON, *Commissioner.*

In pursuance of the powers conferred upon it by Sections 34, 269 and 287 of the Railway Act, and of all other powers possessed by it in that behalf, and upon the report and recommendation of the Director of Operation of the Board—

It is ordered that the following regulations shall govern the location and regulate and control the operation of loading racks, unloading standards or points, marine terminals, storage tanks, pipe lines, refineries and any installation or works for the handling, manufacturing, processing and storing of inflammable liquids on the property of any railway subject to the jurisdiction of the Board or when served by such a railway and within 250 feet of the railway right-of-way:

1. (a) Applications for the installation of works, plants, loading or unloading racks, pipe lines, storage tanks, etc., or changes or additions to existing installations, shall be filed by the owning or operating company with the Board, through the Railway concerned, and the Board's approval to such installation, changes or additions shall be secured before railway service shall be given. Applications must be accompanied by plan in triplicate, at a scale of one hundred feet to one inch, and a profile of twenty feet to one inch, showing in red thereon the proposed location of such works, etc., in relation to railway tracks, railway property boundaries, adjacent buildings, sewers, drains, water courses, etc. Plans shall also indicate approval of such local authority as may be necessary.

(b) The rules and regulations herein prescribed shall apply only to new installations, and/or additions or changes to existing installations. Installations in operation before the date of this Order, which are not in accordance with the terms hereof, shall be made to conform to the rules and regulations herein prescribed, if in the judgment of the Board such action is deemed necessary.

(c) Where conditions will not permit of the requirements being established, the owning or operating company may report, through the railway company, to the Board, forwarding such plans and information as are required. The Board will give due consideration to such cases, but will not approve any departure from the requirements where hazard to the public interest exists.

DEFINITION AND CLASSIFICATION OF INFLAMMABLE LIQUIDS

2. For the purpose of these regulations inflammable liquids are defined and divided into three classes as follows:—

(a) Class I. Any inflammable liquid except Crude Petroleum which gives off inflammable vapours (as determined by flash point from Tagliabue's open-cup tester), at or below a temperature of 80° Fahrenheit.

- (b) Class II. Any inflammable liquid except Crude Petroleum which gives off inflammable vapours (as determined by flash point from Tagliabue's open-cup tester), above 80° Fahrenheit and below 175° Fahrenheit.
- (c) Class III. Crude Petroleum (regardless of flash point).

MEASUREMENTS TO BE MADE FROM MAIN TRACK

3. Distance or distances prescribed herein shall be measured in a straight line, from the gauge side of the nearest rail of main track, to the centre line of track where loading or unloading standard or point is located or to the nearest point of any storage tank, still or other works of a refinery or processing plant, or to be nearest building or property line which may be built upon.

NOTE: Any questions as to the definition of main track in any particular case will be decided by the Board's Director of Operation.

LOADING RACKS, UNLOADING STANDARDS OR POINTS

4. (a) The following minimum distances from main track shall be observed:

Loading Racks at Refineries, Marine Terminals and Bulk Storage Plants			Unloading Racks at Bulk Marketing Stations
Casinghead Gasoline	Class I Liquids Except Casinghead Gasoline	Class II and Class III Liquids	Class I, Class II and Class III Liquids
75 feet	50 feet	35 feet	Subject to negotiation

(b) Overhead unloading standards shall be installed not less than six (6) feet from the gauge side of the nearest rail. Swing pipe or pipes, when not in use shall be folded back or swung clear at least six (6) feet from the gauge side of the nearest rail and securely locked in that position.

(c) Electric lines when not controlled by circuit breakers, crossing over an installation, shall be carried in conduit underground or be supported in conduit by carrying cable. Supports shall be so spaced that the breaking of a line and the swinging of the free end of the wire will not reach or come in contact with such installation. This requirement shall not apply to electric lines for plant operation.

(d) Gravity loading or unloading of tank cars will not be permitted unless a shut off valve is provided at the discharge end of draw off pipe and in addition an emergency valve shall also be provided at the loading or unloading point.

(e) Loading spouts and unloading connections or pipes shall be constructed of non-magnetic material. Risers to loading racks shall be equipped with shut off valves and in addition, each loading line shall be equipped with a valve or cock.

(f) Excepting in cases where wire guard protected vapour-proof type electric lights or vapour-proof electric flash lights are provided, the loading or unloading of tank cars shall not be permitted excepting during day-light hours. Open flame lanterns, or other exposed flame lights or fires must not be used or permitted during loading or unloading operations. Flood lighting at safe distances is permitted.

(g) Each loading rack and each unloading standard or point shall be protected from danger of fire caused by electric sparks, in accordance with the requirements of the Board's General Order No. 602.

(h) When loading or unloading tank cars, Regulations for the Transportation of Explosives and Other Dangerous Articles, as prescribed by the Board of Transport Commissioners for Canada, must be complied with.

(i) Tank car shipments containing Casinghead Gasoline or Class I Liquids except Liquid Road Asphalt or Tar must not be shipped and must not be delivered, unless originally consigned or subsequently reconsigned to parties having private siding or railway siding facilities equipped for piping the liquid from tank cars to permanent storage tanks of sufficient capacity to receive contents of tank car.

(j) Unloading Casinghead Gasoline or Class I Liquids, except Liquid Road Asphalt or Tar, direct from tank cars into drums, portable containers, highway tank trucks, etc., is prohibited.

PIPE LINES

(On Railway Property)

BULK MARKETING STATIONS

5. All pipe lines (whether existing or to be laid) on railway property, used for transferring inflammable liquids shall be subject to the following requirements:

(a) Pipe lines on railway property for loading or unloading tank cars shall be laid at a depth of at least three feet below the surface of the ground, and where such pipes cross under tracks, road or driveway, they shall be laid in an encasing pipe or culvert, the top of said encasing pipe or culvert shall not be less than four feet below bottom of ties, and shall not be less than three feet below surface of road or driveway. Provided the installation is fenced, pipe lines may be laid on the surface of the ground, except that where they cross roadways they shall be laid in culvert the top of which shall not be less than three feet below surface of road.

REFINERIES, MARINE AND BULK STORAGE PLANTS

(b) Pipe lines laid on the surface of the ground parallel to a track, other than the track serving the oil company's plant, shall not be laid closer than 20 feet to the nearest rail.

(c) Pipe lines laid within twenty (20) feet of the nearest rail shall be laid at a depth of at least three feet below the surface of the ground. Pipe lines must not be laid closer than ten (10) feet from the nearest rail.

(d) Pipe lines crossing under any railway track, road or driveway shall be laid in an encasing pipe or culvert. The top of said encasing pipe or culvert shall not be less than four feet below bottom of ties and shall be at least three feet below the surface of road or driveway. The ends of the encasing pipe or culvert shall be carried not less than twenty (20) feet from the centre line of each railway track on either side.

(e) Encasing pipe or culvert under tracks, roads or driveways may consist of metal pipe or reinforced concrete pipe or reinforced concrete trench with removable reinforced concrete slab covers; or pipe may be embedded in solid reinforced concrete provided thickness of concrete around pipe at any point shall not be less than one-half times the diameter of pipe so encased.

(f) Pipe lines laid above the surface of the ground shall be placed on supports or racks, provided that where the ground elevation is above the level of the track, a dyke or drain shall be constructed to prevent the flow of liquids to the track.

(g) Valves in pipe lines below the surface of the ground shall not protrude above ground level but shall be placed in suitable valve boxes. The top of these boxes shall not protrude above ground level; and shall not be less than six feet six inches from gauge side of nearest rail. Valves and valve boxes shall be kept locked when not in use.

(h) Pipe terminals as ground level shall be closed (vapour tight) by valve or screw cap and be enclosed in a masonry, concrete, metal or wooden box and shall be kept locked when not in use.

(i) All pipe lines directly connected to storage tanks shall be equipped with either an interior or an exterior check valve, or similarly effective arrangement, to control the escape of liquid from tanks in the event of a rupture in the pipe line.

(j) Surface indication shall be provided where possible to show where pipe lines are laid below the surface and "danger" signs placed where necessary, particularly in railway yards and station grounds.

(k) Where pipe lines are laid above ground, grass and weed growth and other inflammable vegetation shall be removed and means provided to establish a fire-guard at least six (6) feet in width on both sides; pipes shall be painted in accordance with oil companies' standards.

(l) All pipe lines under pressure of pump shall be patrolled by the owning or operating company in charge for purposes of detecting leaks or other failures. After pumping is finished, pipe lines shall be drained and any sumps or pockets pumped out, unless maintained full at all times.

(m) All Marine Dock pipe lines shall be subjected by the owning or operating company in charge to pressure test fifty (50) per cent greater than the maximum working pressure in the Spring of each year following the thawing out of the frost in the ground for purposes of ascertaining if any leakage exists. When pumping, all pipe lines shall be inspected by the owning or operating company in charge, at frequent intervals.

(n) All pipe lines shall have stop valves located in safe and accessible location at terminals, at tanks, at shore or marine stations and at loading and unloading points. Extension joints and relief valves shall be installed when and where necessary.

STORAGE TANKS (ABOVE GROUND)

6. (a) The provisions of this part shall apply to the construction and installation of plants for the handling and storage of inflammable products, but not the construction and installation of refinery plant equipment, except in so far as the bulk storage of such products is concerned.

(b) The following minimum distances from main track to nearest point of tank shall be observed with respect to the location of above ground storage tanks according to classification of contents and capacity.

Classification Inflammable Liquids	Capacity of Tanks Gallons (Imperial)	Minimum distance in feet to side or end of tank from main track
Class I	0 to 500 501 to 20,000 20,001 to 40,000 40,001 to 60,000 60,001 to 100,000 100,001 to 150,000 150,001 to 250,000 250,001 and over	60 feet 70 feet 80 feet 90 feet 100 feet 110 feet 120 feet 150 feet
Class II One-half the distance prescribed for Class I.		
Class III Any Capacity		250 feet
Open top storage, mixing or blending tank or container not less than 400 feet.		

(Above distances not applicable to drums or such other small containers belonging to railways when used for railway purposes and stored in pump houses, section tool houses, etc.)

(c) Minimum distances from main track are to be based upon the capacity of a single tank. If two or more tanks are interconnected in battery by direct pipe line connections, the combined capacity of all the tanks so connected shall determine the distance from the track.

(d) Except in the case of refineries or processing plants, storage tanks for Class I Liquids shall not be installed inside buildings or warehouses or on ground which cannot be dyked, should dykes be required.

(e) Each above ground tank for storage of Class I Liquids shall be equipped with properly designed and constructed vacuum and pressure valves.

(f) All vent openings, excepting safety valves, shall be provided with non-corrosive wire mesh screen of not less than 40 x 40 mesh per inch (or other approved form of flame arrester), so attached as to completely cover the openings.

(g) Each above ground tank shall be fitted with adequate emergency pressure relief opening or valve. This may take the form of a weak seam or joint in the top, or between the top and the shell of the tank, or one opening sufficient in size for both venting and emergency relief, or some other form of emergency relief device.

(h) Tanks for storage of Class I Liquids with two or more compartments shall be constructed with double bulkhead between compartments and there shall be provided not less than $\frac{3}{8}$ inch permanent drainage opening in the bottom between the two bulkheads; or single plate bulkhead of flange construction so that all seams or joints will communicate directly to the outside of the tank and not between compartments.

DYKES

7. (a) Storage tanks installed on ground which does not drain or slope away from railway property, or which slopes or drains into adjacent waters, shall be protected by suitable dykes or curbs, and every such dyke or curb shall have a capacity equal to that of the largest tank.

(b) Open top tanks containing Class III inflammable liquids if located where railway property or adjacent private property would be exposed to a boil-over of the liquid, shall be surrounded by an earthen or concrete dyke or curb of sufficient size to contain the capacity of the tank. Such dyke or curb shall be equipped with an approved coping or flare-back. Circular steel dykes

may be used when local conditions are favorable to their installation. A dyke surrounding a tank containing Class III Liquids shall not also enclose another tank containing Class I or Class II Liquids.

STORAGE TANKS (UNDERGROUND)

8. The following general principles will govern the installation of Underground Tanks:

(a) The following minimum distance from main track to nearest point of tank shall be observed with respect to the location of underground storage tanks according to classification of contents and capacity.

One-half the distance prescribed in Clause 6 (b) (above ground storage tanks) for like class liquids and tank capacity, excepting in no case shall an underground storage tank be located less than thirty (30) feet from the gauge side of the nearest track.

(b) No underground tanks for Class I Liquids shall be located under or within any building on railway property.

(c) When two or more tanks are installed they shall be separated by at least three (3) feet of earth, or by a brick or concrete dividing wall not less than eight (8) inches in thickness.

(d) All connections shall be made through the top of the tank above the liquid level, for Class I Liquids.

(e) Tanks shall be protected against corrosion on the outside in a satisfactory manner.

(f) The top of every underground tank shall be covered with earth and shall be not less than three (3) feet below the surface of the ground, except that tanks may be covered with one foot of earth and a cover of reinforced concrete at least six (6) inches in thickness, which shall extend at least one (1) foot beyond the limits of the tank on all sides.

Where conditions do not permit of the foregoing requirements being complied with and a portion of the tank is above the general grade level, it shall be fenced in.

Tanks buried under drive or roadways shall be covered with not less than four (4) feet of earth but where such drive or roadway is paved with reinforced concrete not less than six (6) inches in thickness, the total coverage may be reduced to two (2) feet.

(g) Every underground tank or compartment thereof shall be adequately vented through openings of sufficient area to permit escape of air or vapour during filling operations. The lower end of the vent pipe shall not extend through the top into the tank for a distance exceeding one inch. Vent pipes shall be provided with weather proof hoods or shall terminate in a return bend not less than ten (10) feet above the general ground level. All vent lines to underground tanks shall drain toward the tank and shall be without traps or pockets and shall enter the tank at the top. Tanks used for the storage of Class I Liquids shall be provided with flame arresters.

(h) Where necessary to prevent floating or moving, tanks shall be securely anchored or weighted.

PUMPHOUSE, PUMPS AND MOTORS

9. (a) Pumps and electric motors or internal combustion engines shall be housed in a separate building, outside other buildings and not less than ten (10) feet from any storage tank, warehouse or other building. Electric pumping units

are permitted, provided they are installed outside buildings and not less than ten (10) feet from any storage tank, warehouse or other building. Hand operated pumps are permitted.

(b) Excepting in cases where approved non-sparking explosion-proof electric motors and oil immersed or other approved explosion-proof electric switches are used, a fire and vapour proof wall shall be constructed between engine and pump, and where shaft pierces dividing wall a vapour proof packing gland must be installed. (Wall board or sheet rock asbestos partitions are not considered satisfactory fire walls).

(c) Floors of pumphouses shall be constructed of concrete, masonry or crushed stone.

(d) Pumphouses shall be adequately ventilated with open louvres at the ground level.

(e) Pumps shall be provided with valves on both suction and discharge side.

(f) Exhaust pipe from internal combustion engine shall be carried outside building to a safe point and shall be suitably screened against emission of carbon sparks. Air intake to carburetor on internal combustion engine shall be at least six (6) inches above pump room floor.

(g) A main control switch to electric motor or internal combustion engine shall be provided, and located in such a place that in the event of explosion and/or fire the electric motor or engine may be quickly and safely shut down.

(h) Containers used for the storage or measuring of inflammable liquids, whether filled, partially filled or empty, shall not be stored at any time in pump or motor houses.

(i) Leaking joints and valves must not be permitted at any time. All leaks must be stopped immediately and defective joint or valve replaced.

REFINERIES, PROCESSING PLANTS

10. (a) No still, cracking or treating unit, gas plant, separator, working tank or other units of a refinery or processing plant shall be located at less distance than 250 feet from main track, other than those tracks actually serving the plant or location.

(b) Refineries or processing plants shall be located on ground sloping away from railway property, otherwise they must be protected by a suitable dyke or curb. Such dyke or curb protecting open top tanks holding crude petroleum shall have extending above the top thereof, suitable deflectors or copings of sufficient height and strength to divert or impound a sudden flow of inflammable liquid caused by a slop or boil-over.

PREVENTION OF ELECTRIC SPARKS

(Insulation of rail joints, grounding and bonding of pipe lines, pumps, tanks and other structures)

11. Loading racks, unloading standards, connecting pipe lines, pumphouses, storage tanks and other equipment and structures shall be protected from explosion and fire that may be caused by static electricity or electric sparks in accordance with the requirements of the Board's General Order No. 602.

DISCHARGE OF INFLAMMABLE LIQUID

12. No inflammable liquid or liquid residue from any tank or pipe line shall be discharged onto or through railway property or be permitted to enter directly or indirectly into any lake, river, watercourse, sewer, drain or culvert on or immediately adjacent to railway property.

FIRE PROTECTION

13. Satisfactory fire extinguishers suitable for oil fires shall be carried on the premises and be protected from freezing.

14. All installations shall be thoroughly inspected and tested annually by the owning or operating company in charge immediately following the winter season, and the same shall be subject to inspection at any time by any duly authorized Officer of the Board of Transport Commissioners for Canada.

And it is ordered that General Orders Nos. 441, 514, 530 and 594 be, and they are hereby, rescinded.

J. A. CROSS,
Chief Commissioner.

GENERAL ORDER No. 717

In the matter of the Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight and Specifications for Shipping Containers:

File No. 1717.88.41

TUESDAY, the 29th day of June, A.D., 1948

J. A. CROSS, K.C., *Chief Commissioner.*

HUGH WARDROPE, *Assistant Chief Commissioner.*

J. A. STONEMAN, *Commissioner.*

F. M. MACPHERSON, *Commissioner.*

Upon the recommendation of the Director of Operation of the Board—

It is ordered:

That the said Regulations be, and they are hereby, amended by inserting the following Specification immediately after Specification 4B on page 85:—

Specification 4BA

WELDED OR BRAZED STEEL CYLINDERS MADE OF DEFINITELY
PRESCRIBED STEELS

GENERAL

1. Compliance: Required in all details.
2. Type Size, and Service Pressure.—(a) Must be welded or brazed type; not over 1,000 pounds water capacity (nominal); service pressure at least 225 and not over 500 pounds per square inch gauge. Closures welded by the spinning process not permitted.

INSPECTION

3. Inspection by whom and where.—By competent Inspector approved by the Board of Transport Commissioners for Canada and the Bureau of Explosives; for cylinders not made in the Dominion of Canada, the United Kingdom, or the United States of America, the chemical analysis and tests as specified, to be made within the limits of the Dominion of Canada. Interested Inspectors are authorized only on approval of the Board.

4. Duties of Inspector.—(a) Inspect all material and reject any not complying with requirements of this specification. For cylinders made by the billet-piercing process, billets to be inspected after nick and cold break.

(b) Verify chemical analysis of each heat of material by analysis or by obtaining certified analysis: Provided, that a certificate from the manufacturer thereof, giving sufficient data to indicate compliance with requirements, is acceptable when verified by check analyses of samples taken from one cylinder out of each lot of 200 or less.

(c) Verify compliance of cylinders with specification requirements including markings; condition of inside; tests; threads; heat treatment. Obtain samples for all tests, and check chemical analyses, witness all tests, report volumetric capacity, tare weight (see report form), and minimum thickness of wall noted.

(d) Render complete report (Paragraph 20) to purchaser, cylinder maker, and the Bureau to Explosives.

MATERIAL

5. Steel.—Open hearth or electric steel of uniform quality. Designations and limiting chemical compositions of steels authorized by this specification shall be as shown in paragraph 19, Table I. Addition of other elements to obtain alloying effect is not authorized. A heat of steel made under any of the above specifications, chemical analysis of which is slightly out of the specified range, is acceptable, if satisfactory in all other respects, provided the standard permissible variations from specified chemical ranges and limits published in the American Iron and Steel Institute Products Manual, Section 10, dated June, 1945, are not exceeded.

6. Identification of Material.—Required: any suitable method except that plates and billets for hot-drawn cylinders shall be marked with the heat number.

7. Defects.—Material with seams, cracks, laminations, or other injurious defects, not authorized.

CONSTRUCTION

8. Manufacture.—By best appliances and methods; dirt and scale to be removed as necessary to afford proper inspection; no defect acceptable that is likely to weaken the finished cylinder appreciably; reasonably smooth and uniform surface finish required. Exposed bottom welds on cylinders over 18 inches long must be protected by footrings. Seams must be made as follows: Minimum thickness of heads and bottoms shall not be less than 90 per cent of the required thickness of the side wall.

Welding procedure and welding operators must be qualified by an authorized Agency acceptable to the Board for the manufacture of pressure vessels in accordance with Paragraph U-69 of the Rules for Construction of Unfired Pressure Vessels, Section VIII of the American Society of Mechanical Engineers Boiler Construction Code 1943 Edition including Addenda to 1946 Edition.

A record must be maintained in order to accurately identify the various welding operations performed on each cylinder by individual welders.

(a) Circumferential Seams.—By welding or by brazing. Heads attached by brazing must have a driving fit with the shell, unless the shell is crimped, swaged, or curled over the skirt or flange of the head, and must be thoroughly brazed until complete penetration by the brazing material of the brazed joint is secured. Depth of brazing from end of shell must be at least four times the thickness of shell metal.

(b) Longitudinal Seams in Shells.—By copper-brazing only.

(b) (1) Copper Brazed Longitudinal Seams.—The plate edge must be lapped at least eight times the thickness of plate, laps being held in position, substantially metal to metal, by riveting or by electric spot-welding. Brazing must be done by placing flux and brazing material on one side of seam and applying heat until this material shows uniformly along the seam on the other side.

9. Wall thickness.—(a) For outside diameters over 5 inches the minimum wall thickness shall be .078 inch. The calculated wall stress at minimum test pressure shall not exceed the value shown in paragraph 19, Table I for the particular material under consideration, and shall not exceed $\frac{1}{2}$ of the minimum ultimate strength determined as in paragraph 14 or 35,000 pounds per square inch whichever is the smaller; provided that a wall stress of not over 95 per cent

of the above values is authorized for cylinders with copper brazed side seams having strength at least $3/2$ times the strength of the steel wall. Measured wall thickness shall not include galvanizing or other protective coating.

(b) Calculation must be made by the formula

$$S = P \frac{(1.3D^2 + 0.4d^2)}{D^2 - d^2} \text{ wherein:}$$

S = Wall stress in pounds per square inch.

P = Minimum test pressure prescribed for water jacket test.

D = Outside diameter in inches.

d = Inside diameter in inches.

(c) Cylinders with wall thickness less than 0.100 inch, the ratio of tangential length to outside diameter shall not exceed 3.5.

10. Heat Treatment.—Each cylinder must be uniformly and properly heat treated prior to test by the applicable method shown in paragraph 19, Table I. Heat treatment must be accomplished after all forming and welding operations, except that when brazed joints are used, heat treatment must follow any forming and welding operations, but may be done before, during or after the brazing operations.

11. Openings in Cylinders.—(a) All openings must be in the heads or bases.

(b) Each opening in cylinders, except those for safety devices, must be provided with a fitting, boss, or pad, securely attached to cylinder by brazing, by welding, or by threads. If threads are used they must comply with the following:—

1. Threads must be clean-cut, without checks and cut to gauge.

2. Taper threads to be of length not less than as specified for American Standard taper pipe threads.

3. Straight threads, having at least 4 engaged threads, to have tight fit and calculated shear strength at least 10 times the test pressure of the cylinder; gaskets required, adequate to prevent leakage.

(c) Closure of fitting, boss, or pad must be adequate to prevent leakage.

12. Safety devices and protection for valves, safety devices, and other connections, if applied.—Must be as required by the Board of Transport Commissioners for Canada Regulations that apply. (See para. 216-IA and 217).

CYLINDER TESTS

13. The Board may require that additional tests be performed and/or a greater percentage of cylinders subject to any or all of the tests specified herewith.

(a) Hydrostatic Test.—By water jacket, or other suitable method, operated so as to obtain accurate data. Pressure gauge must permit reading to accuracy of 1 per cent. Expansion gauge must permit reading of total expansion to accuracy either of 1 per cent or 0.1 cubic centimeters.

(b) Pressure must be maintained for 30 seconds and sufficiently longer to insure complete expansion. Any internal pressure applied after heat treatment and previous to the official test must not exceed 90 per cent of the test pressure.

(c) Permanent volumetric expansion must not exceed 10 per cent of the total volumetric expansion at test pressure.

(d) Cylinders must be tested as follows:

1. Each cylinder; to at least 2 times service pressure.
2. Or, 1 cylinder out of each lot of 200 or less; to at least 3 times service pressure. Others must be examined under pressure of 2 times service pressure and show no defect.

14. Physical Test.—(a) Required on 2 specimens cut from one cylinder having passed the hydrostatic test, or part thereof heat treated as required, taken at random out of each lot of 200 or less.

(b) Specimens must be.—Gauge length 8 inches with width not over $1\frac{1}{2}$ inches; or, gauge length 2 inches with width not over $1\frac{1}{2}$ inches, provided, that gauge length at least 24 times thickness with width not over 6 times thickness is authorized when cylinder wall is not over $\frac{3}{16}$ inch thick. The specimen, exclusive of grip ends, must not be flattened. Grip ends may be flattened to within one inch of each end of the reduced section. When size of cylinder does not permit securing straight specimens, the specimens may be taken in any location or direction and may be straightened or flattened cold, by pressure only, not by blows; when specimens are so taken and prepared, the inspector's report must show in connection with record of physical tests detailed information in regard to such specimens. Heating of specimen for any purpose is not authorized.

(c) (1) The yield strength in tension shall be the stress corresponding to a permanent strain of 0.2 per cent of the gauge length.

(c) (2) The yield strength shall be determined by either the "offset" method or the "extension under load" method as prescribed in ASTM Standard E8-46.

(c) (3) In using the "extension under load" method, the total strain (or "extension under load"), corresponding to the stress at which the 0.2 per cent permanent strain occurs may be determined with sufficient accuracy by calculating the elastic extension of the gauge length under appropriate load and adding thereto 0.2 per cent of the gauge length. Elastic extension calculations, shall be based on an elastic modulus of 30,000,000. In the event of controversy, the entire stress-strain diagram shall be plotted and the yield strength determined from the 0.2 per cent offset.

(c) (4) For the purpose of strain measurement, the initial strain reference shall be set while the specimen is under a stress of 12,000 pounds per square inch. the strain indicator reading being set at the calculated corresponding strain.

(c) (5) Cross-head speed of the testing machine shall not exceed $\frac{1}{8}$ inch per minute during yield strength determination.

15. Elongation.—Physical test specimens must show at least 40 per cent for 2 inch gauge length or at least 20 per cent in other cases, except that these elongation percentages may be reduced numerically by 2 for 2 inch specimens, and by 1 in other cases, for each 7,500 pounds per square inch increment of tensile strength above 50,000 pounds per square inch to a maximum of four such increments.

16. Weld Test.—(Does not apply to brazed seams.)

(a) Reduced Section Tensile Test.—A specimen shall be cut from the cylinder used for the physical tests specified in paragraph 14 (a). Specimen shall be taken across the seam, edges shall be parallel for a distance of approximately 2 inches on either side of the weld. The specimen must be fractured in tension. The breaking stress calculated on the parent metal area must be at least equal to two (2) times the stress calculated under paragraph 9 (b). Should this specimen fail to meet the requirements, specimen may be taken from two additional cylinders from the same lot and tested. If either of the latter specimens fails to meet requirements, the entire lot represented shall be rejected.

(b) Guided Bend Test.—A bend test specimen shall be cut from the cylinder used for the physical tests specified in the A.S.M.E. Code for Unfired Pressure

Vessels 1940 Edition. Specimen shall be taken across the seam, shall be $1\frac{1}{2}$ inches wide, edges shall be parallel and rounded with a file, and back-up strip, if used, shall be removed by machining. The specimen shall be bent to refusal in the guided bend test jig illustrated in paragraph 23 of Specification ICC4B. The root of the weld (inside surface of the cylinder) shall be located away from the ram of the jig. No specimen shall show a crack or other open defect exceeding $\frac{1}{8}$ inch in any direction upon completion of the test. Should this specimen fail to meet the requirements, specimens may be taken from each of two additional cylinders from the same lot and tested. If either of the latter specimens fails to meet requirements, the entire lot represented shall be rejected.

REJECTED CYLINDERS

17. Reheat Treatment Authorized; subsequent thereto, acceptable cylinders must pass all prescribed tests. Repair of brazed seams by brazing and welded seams by welding is authorized.

MARKING

18. (a) On each cylinder stamped as follows:

1. CRC—4BA * * *; stars to be replaced by the service pressure. (For example, CRC-4BA240).

2. A serial number and an identifying symbol, both to be of the purchaser, user, or maker. The symbol must be registered with the Bureau of Explosives. Duplications unauthorized. Lot numbers in place of serial numbers authorized for cylinders not over 2 inches outside diameter or for cylinders with volumetric capacity not exceeding 60 cubic inches.

3. Inspector's official mark.

4. Date of test (such as 4-48 for April, 1948).

5. For cylinders designed for stress over 24,000 pounds per square inch at minimum test pressure, the stress factor (the numerical value of the expression S/P , see paragraph 9 (b), to nearest three significant figures). To be stamped immediately to the right of the C.R.C. marking (example: CRC-4BA240-655).

6. Additional Markings are permitted.

(b) Sequence of marks.—Number shall be just below the CRC marking; identifying symbol shall be just below the number; inspector's official mark shall be near the serial number. Date of test shall be so placed that dates of subsequent test can easily be added. Symbol in front of or following the number, with space between, or symbol and serial number stamped into welded or brazed-on valve spud directly above the CRC mark located on head of cylinder are also authorized. Other variations in sequence of marks authorized only when necessitated by lack of space.

(c) Location of Markings.—Markings may be stamped plainly and permanently in the following locations on the cylinder:

1. On shoulders and stop heads not less than .087 inch thick.

2. On side wall adjacent to top head for side walls not less than .090 inch thick.

3. On neck, valve boss, valve protection sleeve, or similar part permanently attached to top end of cylinder.

4. On a plate attached to the top of the cylinder or permanent part thereof; sufficient space must be left on the plate to provide for stamping at least six retest dates; the plate must be at least $\frac{1}{16}$ inch thick and must be attached by welding, or by brazing at a temperature of at least 1,100°F, throughout all edges of the plate.

5. Variations in location of markings authorized only when necessitated by lack of space.

(d) Size of Marks.—Space permitting, at least $\frac{1}{4}$ inch high.

TABLE I
TYPE OF MATERIAL

19. Table I.

Chemical Analysis	Chemical Analysis—Limits in Per Cent				
	1315*	HIS*	NAX*	COR*	4017*
Carbon	0.10/0.20	0.12 max.	0.20 max.	0.12 max.	0.13/0.20
Manganese	1.30/1.65	0.50/0.90	0.50/0.75	0.20/0.50	0.75/1.10
Phosphorus	0.045 max.	0.05/0.12	0.045 max.	0.07/0.15	0.040 max.
Sulphur	0.050 max.	0.050 max.	0.050 max.	0.050 max.	0.040 max.
Silicon	0.15/0.35	0.15 max.	0.60/0.90	0.25/0.75	0.25/0.35
Chromium			0.45/0.65	0.50/1.25	
Molybdenum		0.08/0.18			0.25/0.35
Zirconium			0.05/0.25		
Nickel		0.45/0.75		0.65 max.	
Copper	0.40 max.	0.95/1.30		0.25/0.55	
Aluminum		0.12/0.27			
Heat Treatment Authorized	See Note 1	See Note 1	See Note 1	See Note 1	See Note 1
Maximum Stress	35000	35000	35000	35000	35000

*The commercial steel is limited as to chemical analysis as shown in the table.

NOTE 1. Any suitable heat treatment in excess of 1,100°F.

HUGH WARDROPE,
Assistant Chief Commissioner.

GENERAL ORDER No. 718

In the matter of the proposed amendments to the Regulations for the Transportation by Express of Acids, Compressed Gases, Inflammables, Oxidizing Substances, Explosives, etc., and Specifications for Shipping Containers, approved by General Order No. 678, dated the 3rd day of December, 1945:

File No. 1717.12.195

THURSDAY, the 16th day of July, A.D. 1948.

HUGH WARDROPE, *Assistant Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

J. A. STONEMAN, *Commissioner.*

F. M. MACPHERSON, *Commissioner.*

Upon the report and recommendation of the Director of Operation of the Board; and upon reading the submissions filed—

It is ordered:

That the said Regulations for the Transportation by Express of Acids, Compressed Gases, Inflammables, Oxidizing Substances, Explosives, etc. and Specifications for Shipping Containers, to be observed by shippers, and by express companies subject to the jurisdiction of the Board, be, and they are hereby, amended in accordance with amendments in Supplement No. 2 to C.T.C. No. E.T. 3469, on file with the Board under file No. 1717.12.195, and certified by the Secretary of the Board.

HUGH WARDROPE,
Assistant Chief Commissioner.

GENERAL ORDER No. 719

In the matter of the application of the Canadian Industries Limited for permission to use steel drums manufactured by the Smart-Turner Machine Company, to CRC Specification 5A, with three-quarter-inch by one and one-quarter-inch I-Bar Hoops instead of one inch by one and one-half inch I-Bar Hoops, for the transportation by rail freight of carbon bisulphide, trichlorethylene, perchlorethylene, chloroform and sulphuric acid:

File No. 1717-88-51

SATURDAY, the 20th day of November, A.D. 1948.

HON. MR. JUSTICE M. B. ARCHIBALD, *Chief Commissioner.*HUGH WARDROPE, *Assistant Chief Commissioner.*J. A. STONEMAN, *Commissioner.*H. B. CHASE, C.B.E., *Commissioner.*

Upon reading the submissions filed; and upon the recommendation of the Director of Operation of the Board—

It is ordered: That, until further Order of the Board, railway companies subject to the jurisdiction of the Board be, and they are hereby, authorized to take and receive from the Canadian Industries Limited steel drums manufactured by the Smart-Turner Machine Company, to CRC Specification 5A, with $\frac{3}{4}$ -inch by $1\frac{1}{4}$ -inch I-Bar Hoops instead of 1-inch by $1\frac{1}{2}$ -inch I-Bar Hoops.

M. B. ARCHIBALD,
Chief Commissioner.

GENERAL ORDER No. 720

In the matter of the Regulations for the Transportation by Express of Acids, Compressed Gases, Inflammables, Oxidizing Substances, Explosives, Etc., and Specifications for Shipping Containers:

File No. 1717.12.

MONDAY, the 29th day of November, A.D. 1948.

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

J. A. STONEMAN, *Commissioner.*

F. M. MACPHERSON, *Commissioner.*

Upon reading the submissions filed; and upon the recommendation of the Director of Operation of the Board—

It is ordered: That the Regulations for the Transportation by Express of Acids, Compressed Gases, Inflammables, Oxidizing Substances, Explosives, etc., and Specifications for Shipping Containers, be, and they are hereby, amended by striking out paragraph numbered 31 (a) on page 25 thereof and substituting therefor the following:

- 31 (a) Small arms ammunition includes all fixed ammunition, Class C of calibre less than 37 mm., such as is used in pistols, revolvers, rifles, shot guns and similar firearms, or in machine guns, with non-explosive bullets, and consists usually of a paper or metallic cartridge case, the primer, and the propelling powder charge, with or without shot, bullet (except explosive bullets), tear gas material, or pyrotechnics, the component parts necessary for one firing being all in one assembly.

A. SYLVESTRE,
Deputy Chief Commissioner.

GENERAL ORDER No. 721

In the matter of the General Order of the Board No. 598, dated October 11, 1940, authorizing, for the observance of the railway companies subject to the jurisdiction of the Board which accept explosives and other dangerous articles for carriage, the revised regulations for the transportation of explosives and other dangerous articles by freight, and specifications for shipping containers:

File No. 1717.88.39.

THURSDAY, the 2nd day of December, A.D. 1948.

Hon. Mr. Justice M. B. ARCHIBALD, *Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

Upon reading the submissions filed; and upon the recommendation of the Director of Operation of the Board—

It is ordered: That the said regulations for the transportation of explosives and other dangerous articles by freight, and specifications for shipping containers, as amended by General Order No. 705, be, and they are hereby, amended by striking out clause (b) of paragraph numbered 23 of Specification 4B and by substituting therefor the following clause:

- (b) Steel shall be plain carbon steel equal in quality to ASTM firebox grade, and having carbon content not in excess of 0.25. One tension and one bend test to be made from each 20000# weight or less rolled from each heat. All other requirements of the referred standard specification to be met, with the exception that each sheet shall have the heat number stencilled as a means of identification.

The Board may require that a check analysis be made of the steel from one finished cylinder from each lot of 200 or less, if, in the Board's opinion, satisfactory identification of the steel has not been furnished.

M. B. ARCHIBALD,
Chief Commissioner.

CIRCULAR No. 263R.

October 21st, 1948.

File No. 1750.18—Re: Applications to the Board for approval of less than standard clearances.

The Board is quite concerned with the number of applications being made for approval of plans for less than standard clearance. Some applications have not given sufficient information on which Order may issue, and in other cases plans accompanying applications have not shown a clear picture of existing conditions.

Before applications of this nature are made to the Board, the Railway should satisfy itself that the circumstances warrant application being submitted.

In view of this, the Board would be pleased if the following provisions were observed in making such applications:—

1. All applications for less than standard clearances must be made by the Railway operating the trackage concerned. If more than one Railway operates over the trackage, each must make separate applications. No application from an industry served by the trackage will be considered. In all cases an undertaking must be given by the Railway to keep its employees off the tops of engines and cars while operating on the trackage where less than standard overhead clearance exists and off the sides of engines and cars when the side clearance is less than standard; and agree if application is granted to install signs indicating such restricted clearances.

2. Plans accompanying application should show clearly the trackage relative to buildings and structures concerned, with sections at each point or points where less than standard clearance occurs, the location of these sections to be clearly indicated on the plan. The scale of the plan and sections to be such that all information required can be shown without crowding. Sufficient area should be shown on the plan to show method of operation.

3. Applications should state whether the structures creating the less than standard clearances are existing or contemplated, and if contemplated the Board's approval must be obtained before construction is undertaken.

4. Whether any part of the operation over the trackage concerned is performed by the industry or company served, either by locomotives operated on the track, or by mechanical car puller or gravity.

5. Whether it is necessary for locomotives to pass the points of restricted clearances.

6. Whether only certain types of cars, such as flats, coal cars, service cars or tank cars, are operated on the trackage concerned.

7. Whether in cases where there is less than standard clearance on one side and more than standard clearance on the other, the track could not be thrown.

8. Applications in all cases should be accompanied by a statement from the industry and from an Engineer of the Railway company stating why the less than standard clearance is necessary.

9. Where applications are made for temporary less than Standard clearances, the time these restricted clearances will be in existence should be stated, so that it may be included in the Order, and when permanent replacement is made, if the less than standard clearance is still necessary, a new application should be made.

10. Industrial Officers of the Railway should be conversant with these provisions.

11. The Board may in exceptional circumstances issue Orders authorizing less than standard side and overhead clearances, but this practice is not encouraged.

BY ORDER OF THE BOARD

P. F. BAILLARGEON,

Secretary.

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DOMINION OF CANADA

FORTY-FIFTH REPORT

OF THE

BOARD OF

TRANSPORT COMMISSIONERS

FOR CANADA

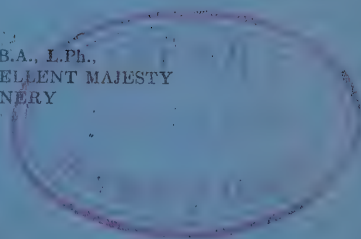
FOR THE YEAR ENDED DECEMBER 31

1949



OTTAWA
EDMOND CLOUTIER, C.M.G., B.A., L.P.L.
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
CONTROLLER OF STATIONERY

1950



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THE BOARD OF TRANSPORT COMMISSIONERS
FOR CANADA, 1949

Hon. Justice M. B. ARCHIBALD, *Chief Commissioner.*

W. H. M. WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

W. J. PATTERSON, *Commissioner.*

P. F. BAILLARGEON,
Secretary.

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REPORT OF THE BOARD OF TRANSPORT COMMISSIONERS FOR CANADA

To the Governor in Council:

Pursuant to the provisions of Section 31 of the Railway Act, 1919, the Board of Transport Commissioners for Canada has the honour to submit its Forty-fifth Report for the year ended December 31, 1949.

AMENDMENTS TO THE RAILWAY ACT

During the year 1949 there were no amendments to the Railway Act, nor to the Transport Act, 1938.

PUBLIC SITTINGS OF THE BOARD

During the year covered by the period from January 1, 1949, to December 31, 1949, the Board held 31 public sittings at which 37 cases were heard. The number of public sittings held in the various provinces was as follows:—

Provinces	Number
Ontario.....	22
Quebec.....	4
Manitoba.....	0
Saskatchewan.....	0
Alberta.....	0
British Columbia.....	0
Nova Scotia.....	2
New Brunswick.....	3
Prince Edward Island.....	0
Total.....	31

The applications include a great variety of matters falling within the jurisdiction of the Board under the Railway Act and the Transport Act, varying from a complaint of a private individual to weightier matters of general public interest affecting the community as a whole.

FORMAL AND INFORMAL MATTERS

The number of informal matters dealt with by the Board, as distinguished from matters heard at public sittings, constitute a considerable percentage of the total applications and complaints dealt with by it; that is to say, of a total of 2,288 applications and complaints received and dealt with by the Board 98.42 per cent were disposed of without the necessity of such formal hearing. These informal complaints, dealt with and settled without the necessity of hearing, entail in many instances a considerable amount of inquiry and consideration on the part of the Board and the Board's officials, and cover a wide range of subjects, as, for example, a complaint of a more or less trivial nature to a matter of general public interest affecting the community as a whole, or involving the application of some general principle regarding the transport rates.

DECISIONS AND RULINGS OF THE BOARD

Judgments, Orders, Rules and Regulations of the Board appear in the semi-monthly bulletin of the Board. The Board's Judgments are also reported in the Canadian Railway and Transportation Cases. Brief notes of a number of the more important judgments delivered in 1949 are given below.

PROVINCE OF BRITISH COLUMBIA *v.* C.P.R., C.N.R. *et al.*
63 C.R.T.C. 214

The Province applied for an order directing the railways to remove from their freight tolls the so-called "mountain differential", that term being used to denote the amount by which the tolls within, from and to Pacific territory exceeded comparable tolls in Prairie territory.

The railways contended that the differential was justified due to the higher costs of railway construction, maintenance and operation in Mountain territory, that it applied to only a small proportion of the traffic, and that if it was removed the loss to the railways should be compensated by a general increase in freight rates.

The Board found that conditions had changed since the differential was originally imposed; that reductions in the differential made by the Board in 1914 and 1922 must have been by reason of increased volume of traffic; and that the volume of traffic now being carried is so much greater than it was in 1922 or in 1914 there is no justification for retention of the mountain differential, governed as it is by the volume of traffic. The Board also held that the railways did not make out a case to warrant a general increase in freight rates to offset the loss of the mountain differential.

TORONTO *v.* C.N.R. AND C.P.R.
63 C.R.T.C. 261

Upon application of the City of Toronto for grade separation at Dupont Street, Jones Avenue, Woodbine Avenue, Dufferin Street and Symington Avenue crossings, the Board ordered subways to be constructed at Dupont Street and Jones Avenue.

At one or more of the crossings certain public utilities, including the Consumers Gas Co., Toronto Transportation Commission and Bell Telephone Co. of Canada, were involved.

The Board held that when grade separation is ordered for the protection, safety and convenience of the public, public utility companies must bear the expense of moving such of their plant as is affected. This rule has been followed by the Board for many years and while the Board is free to review it at any time, sufficient cause was not shown to move the Board to review, rescind or vary its former ruling.

Under section 39 of the Railway Act the Board may find that a Tramway Company operating buses through a subway is "interested or affected", so that it may be called upon to contribute to the cost of protection, although the Board is not compelled to order a contribution, and has declined to do so in previous cases involving motor buses. Trolley buses, which the Toronto Transportation Commission proposed to operate through the Dupont Street subway, are analogous to motor buses rather than to street cars. Hence the Board did not order a contribution by the Toronto Transportation Commission beyond the cost of increasing the overhead clearance of the subway to accommodate the buses.

The Board also held that the Railway Grade Crossing Fund is a national fund to be used as equitably as possible throughout the country. The fundamental purpose of the proposed subways was safety and protection and consequently the Board felt that it was not unreasonable to call upon the railways to contribute. The Board is not bound by an agreement made in 1891 whereby the city undertook to pay for any protection required at Dupont Street crossing.

C.N.R., C.P.R. and McCOLL FRONTENAC OIL CO. LTD. v. IMPERIAL OIL LTD. *et al.*
63 C.R.T.C. 300

In consideration of a reduced rate which the railways proposed to grant to McColl Frontenac Oil Co. Ltd., the latter company agreed to ship all of its Saskatchewan market requirements of refined petroleum products by rail from the Lakehead. The respondent oil companies owned refineries in or near Saskatchewan, and while under the provisions of Part V of the Transport Act, 1938, they had a right to become parties to the agreed charge agreement, participation would have prevented them from supplying any part of their Saskatchewan markets from these refineries.

The Board held that it was the Board's duty to consider (1) whether the object of the agreement could adequately be secured by means of a special or competitive tariff under the Railway Act, (2) the effect upon the net revenue of the carrier, and (3) the effect upon the business of objecting shippers. The Board must also have regard to "all considerations which appear to the Board to be relevant".

The object of the agreement was to avoid the carriage of crude oil at low rates or of refined products for short distances, and to prevent the carriage of the refined products by highway transport. This object could not be achieved by special or competitive rates under the Railway Act, as the shipper would be left free to ship in any way it chose.

The unlimited right to any shipper to object is beyond question but the Board's duty is to have regard, in particular, to the effect upon the whole of the objecting shipper's business. The agreement would have no detrimental effect upon either the net revenues of the carriers or the business of the objecting companies, and would not place the shipper in a more advantageous position in the Saskatchewan market than it could otherwise obtain. The application was therefore granted.

Re APPLICATION OF INTERPROVINCIAL PIPE LINE COMPANY FOR LEAVE TO
CONSTRUCT A PIPE LINE FROM EDMONTON TO REGINA

39 J.O.R. & R. 111

The applicant applied under the Pipe Lines Act for leave to construct a pipe line for the transportation of oil from a point in the vicinity of Edmonton to a point in the vicinity of Regina. The pipe line will be about 450 miles in length and not less than 16 inches in diameter.

The applicant satisfied the Board as to its financial responsibility and all other considerations which appeared to be relevant, and the Board consequently granted the application, the first of its kind under the Pipe Lines Act.

Re APPLICATION OF INTERPROVINCIAL PIPE LINE COMPANY FOR LEAVE TO
CONSTRUCT A PIPE LINE FROM REGINA TO GREY

39 J.O.R. & R. 177

The applicant applied for leave to construct a pipe line for the transportation of oil from the Regina terminus of the Edmonton-Regina pipe line, above mentioned, to Grey, Manitoba. This pipe line was proposed as part of a continuous pipe line from Edmonton to Superior, Wisconsin. The Regina-Grey line will be about 340 miles in length with a capacity of 70,000 barrels a day, of which it is proposed that at least 35,000 barrels a day will pass through the pipe line in bond to Superior, for storage there and from there to be transported by tankers across Lake Superior and Lake Huron to Sarnia where the Imperial Oil Company has a refinery. The total cost of the line from Edmonton to Superior, including facilities at Superior, is estimated at \$90,000,000.

The Government of the Province of Alberta supported the application. The Dominion Department of Trade and Commerce also favoured the project in accordance with the application. The Board was satisfied as to the financial responsibility of the applicant and that the construction of the proposed line will enable the applicant to get the oil to a market in the most economical and practical manner and with the least delay. The Board consequently granted the application, subject to the applicant obtaining a licence from the Governor in Council to construct a pipe line to carry oil outside Canada and to the Imperial Oil Company obtaining a licence permitting export of the oil.

ST. CATHARINES *v.* C.N.R.
63 C.R.T.C. 336

A highway bridge over the railway constructed and maintained by the railway having become inadequate for the accommodation of highway traffic, the city of St. Catharines applied for an order requiring the railway to widen the bridge and approaches, all at the expense of the railway except as to surfacing. The bridge was 19 ft. 4 ins. wide between curbs and was without sidewalks.

The Board held that in order to accommodate highway and pedestrian traffic the bridge should be reconstructed to an overall width of 40 ft., including 2 sidewalks 5 ft. in width, but as the application was connected with the action of the city in desiring to expand its area south of the bridge and as the status of the highway has changed from an unimportant roadway with very little traffic to a very important highway, the railway should pay the cost of construction and maintenance, exclusive of surfacing, relating to the highway portion, 30 ft. in width, and the city the cost of construction and maintenance of the balance and of the surfacing of the bridge and approaches, together with the cost of any changes desired in the approaches.

SCARBOROUGH TOWNSHIP *v.* C.N.R.
64 C.R.T.C. 105

In or prior to 1856 a subway was constructed by the predecessors of the C.N.R. to carry a line of railway over a highway senior to the railway. During recent years highway traffic has increased and changed considerably, the highway has been improved, and the area surrounding the subway has developed greatly. The applicant applied for an order for reconstruction of the subway and apportionment of cost.

The railway submitted that the Board was without jurisdiction, that the sections of the existing Railway Act giving power to order reconstruction could not be applied to a structure built before their enactment and in accordance with the law in effect at the time.

The Board held that it had jurisdiction under sections 39, 257, 259 and 264 of the Railway Act, regardless of the date of construction of the subway, to order reconstruction of the subway to make it suitable to present traffic conditions and so as to afford at all times safe and adequate facilities for all the traffic passing through it, and to apportion the cost.

An order for reconstruction was granted, the cost of paving and maintaining sidewalks and roadways through the subway to be borne by the Township, the balance of construction cost to be apportioned 75% to the Township and 25% to the railway, and maintenance of the structure to be borne by the railway.

Re REVIEW OF JUDGMENT AND ORDER No. 70425 MADE BY THE BOARD ON
MARCH 30, 1948, AND

Re APPLICATION OF THE RAILWAY ASSOCIATION OF CANADA FOR AUTHORITY
TO MAKE A GENERAL INCREASE OF 20 PER CENT IN ITS FREIGHT RATES

64 C.R.T.C. 1

By Order in Council P.C. 4678, the Board was directed to consider certain complaints made by seven provinces in respect of its 21% judgment of March 30, 1948, concurrently with its consideration of an application filed on behalf of the railways for a further increase of 20% in freight rates. The matters were heard together.

The Board held that upon review of the 21% judgment the findings of the Board should not be disturbed as to maintenance charges, deferred maintenance, surplus, dividends, co-operative measures and horizontal increases. But new evidence was held to justify revision of the 21% judgment in respect to allowances for fixed charges, depreciation and income tax, with the result that the general increase required in freight rates was 15% instead of 21%.

As to the application for a further increase of 20%, it was held that evidence was not furnished to show what portion, if any, of an increase in labour costs was proper and necessary and that the Board will not automatically direct an increase in freight rates by reason of increased labour costs unless the propriety and necessity of the increases have been demonstrated; that in view of the revision now made in the 21% judgment the evidence and exhibits in the present application would have to be restated; that investigations into transportation matters were being conducted by a Royal Commission, whose findings, and possible implementation of certain of its recommendations, should be awaited; that the Board, pursuant to the directions of Order in Council P.C. 1487 of April 7, 1948, was currently conducting a general freight rates investigation with a view to the establishment of a fair and reasonable rates structure; that the railway revenue position had undergone changes due to increases and decreases on certain rates since the 21% judgment, and that in these circumstances a final determination of the application should not be made now, but an interim increase of 8% should be granted.

By Order No. 73123 the Board authorized a general increase of 8% in the freight rates in effect on July 27, 1948, and an increase of 8 cents per ton on coal and coke, with certain exceptions set forth in the Order.

(This judgment was appealed to the Supreme Court of Canada with the result indicated in the next paragraph.)

APPEALS FROM RULINGS OF THE BOARD

No case was appealed to the Governor in Council in 1949.

The Canadian Pacific Railway Company appealed to the Supreme Court of Canada from the judgment last above mentioned which granted an interim increase of 8% in freight rates. The Supreme Court held that the Board failed in its duty to determine whether and to what extent an increase in freight rates should be authorized because of changing conditions or cost of transportation, when by the judgment appealed from it postponed the final determination of the application of the railway companies until the investigations, studies and determination of the several matters referred to in the judgment have been completed.

Following the decision, which was handed down on December 22, 1949, the Board prepared to resume its hearing of the application for a 20% increase in freight rates.

ORDERS, GENERAL ORDERS AND CIRCULARS

The total number of orders issued for the year ended December 31, 1949 was 1,985. The number of general circulars issued by the Board directed to all the transport companies subject to its jurisdiction was one. The general orders as distinguished from other orders of the Board are those affecting all transport companies subject to its jurisdiction, and are 14 in number for the year.

The general orders and circulars issued by the Board during the year ended December 31, 1949, will be found compiled under Appendix "H" of this report.

APPLICATIONS TO THE BOARD

The total number of applications, including informal complaints, made to the Board for the year ended December 31, 1949, was 2,288.

TRAFFIC DEPARTMENT OF THE BOARD

In the Traffic Department of the Board the number of tariffs received and filed for the year ended December 31, 1949, was as follows:

Freight tariffs, including supplements.....	30,394
Passenger tariffs, including supplements.....	2,869
Express tariffs, including supplements.....	2,127
Telephone tariffs, including supplements.....	1,403
Sleeping and Parlour car tariffs, including supplements.....	59
Telegraph and Radio tariffs and supplements.....	33
Bridge tolls, including supplements.....	
Water freight tariffs, including supplements.....	161
Water passenger tariffs, including supplements.....	41
Agreed Charges—tariffs.....	34
Total.....	37,121

The total number of tariffs filed from February 1, 1904, to December 31, 1949, was 2,468,515.

The details of the tariffs will be found under Appendix "C" to this report.

ENGINEERING DEPARTMENT OF THE BOARD

The report of the Engineering Department shows that 1,160 inspections were made covering the whole Dominion. These inspections for the year ended December 31, 1949, cover opening of railway for the carriage of traffic, highway crossings, signal protection at highway crossings, bridges, subways, interlocking plants, drainage, private crossings, railway lines in connection with maintenances, signals at swing bridges, fencing, improving view at crossings, investigations and inspections in connection with accidents on railway lines and at highway crossings, automatic block signals, less than standard clearance, and many inspections in connection with projects to provide post-war work.

A statement of works approved by Board's Orders on the recommendation of the Engineering Department is included in the report together with an explanation of the work, study and investigation involved.

There is a report on expenditures from the Railway Grade Crossing Fund and Special Votes for protection at highway crossings of railways.

It will be noted in the report that many matters that come up and are referred to the Engineering Department are settled by inspections, personal contact or correspondence without the necessity of an Order of the Board.

The Engineering Department report will be found under Appendix "D".

OPERATING DEPARTMENT OF THE BOARD

The following general matters were dealt with by the Operating Department of the Board during the year 1949:

General Railway Accidents (including Highway crossings).....	3,221
Highway Crossing Accidents.....	441
Motive Power Reports.....	61,321
Locomotive Inspections.....	8,173
Internal Boiler Inspections.....	126
Stationary Boiler Reports.....	2,750
Freight Cars Inspected.....	35,300
Passenger Coaches Inspected.....	2,785
Air Reservoir Reports.....	4,511
Inflammable Liquid Installations.....	228
Liquefied Petroleum Gas Installations.....	14
Fires on Forested Territory.....	633
Fireguards Ploughed (miles).....	4,562.70

Regulations for the Transportation of Explosives and Other Dangerous Articles both by Freight and Express.

The number of accidents investigated totalled 3,221 involving 4,072 casualties of which number 334 persons were killed and 3,738 injured, which is an increase over the previous year of 209 casualties.

Accidents at highway crossing for the year totalled 441 with 138 killed and 589 injured. Of this number 99 accidents occurred at crossings where there were protective devices, with the remaining 342 occurring at unprotected crossings.

During the year numerous investigations were made regarding train and station services, approval of new, or additions to, stations removal or appointment of station agents, and all other features pertaining to train operation.

Five hundred and four fires attributed to railways are reported to have originated on 14,646 miles of line classified as forested territory. These fires burned 2,212 acres of young forest growth, 658 acres of merchantable timber, 483 acres of slashing or old burned lands not restocking, and 2,830 acres of non-forested lands.

Of this total 287 fires burned over less than one-fourth acre each; 289 fires burned over an area of one-fourth acre to ten acres each; and 57 fires burned over an area of more than 10 acres each.

The total area burned over was 6,183 acres, with damage to young forest growth, standing timber, forest products and other property estimated at \$3,645.00. Of this amount, the value of standing timber and young forest growth is estimated at \$3,420.00.

In accordance with the requirements of the Board, the railways maintained special patrol on 8,457 miles of line, necessitating the special attention to fire patrol of a total of approximately 1,080 fire patrolmen.

Under the co-operative arrangements with the various Dominion and Provincial Forest Services, 238 officers and men of such services were under appointment as ex-officio officers of the Board.

During the year 1949, 4,989 inspections of locomotive fire protective appliances were made in connection with railway fire prevention.

In accordance with the Board's Fireguard Requirements, the railways constructed or maintained 4,562.70 miles of fireguards in uncultivated lands, in non-forested sections of the Prairie Provinces.

The Report of the Operating Department of the Board is appended hereto as Appendix "E" of this report.

BUREAU OF TRANSPORTATION ECONOMICS

This Bureau constitutes a new department of the Board. It started to function in the last days of 1946. Its main duties consist in supplying the Board with the result of economic studies in the general transportation field and with reports on the economic aspects of the cases submitted to the Board for determination. The report of the activities of the Bureau, during 1949, is to be found in Appendix "F".

RAILWAY GRADE CROSSING FUND

This fund has been created for the purpose of contributing to the protection of railway level crossings. This protection is brought about by various means, for instance, by the improvement of the view on the approaches of crossings, by the installation of protective devices such as bells and wig-wags, lighting systems, gates, etc. In many instances, and particularly in cities and towns, protection is also afforded by the employment of watchmen. Finally, the most efficient means of protecting level crossings, is, undoubtedly, by separating them altogether, which can be effected in various ways, for example, by the construction of over-crossings or bridges, and of tunnels and subways. Road diversion is another way to do away with level crossings.

ROUTINE WORK OF THE BOARD

RECORD DEPARTMENT

Below is given a table setting forth the number of applications, filings and letters received during the year ended December 31, 1949, together with the number of orders issued:—

Number of applications made.....	2,288
Number of filings received during the year.....	26,666
Number of outgoing letters during the year.....	24,167
Number of orders issued during the year.....	1,985

PRINCIPAL CHANGES ON THE PERSONNEL AND STAFF OF THE BOARD

On March 12, 1949, Mr. J. A. Stoneman completed his second term as member of the Board and was replaced by Mr. W. J. Patterson who was appointed on April 28, 1949. Mr. F. M. MacPherson was reappointed as member of the Board on September 21, 1949, after his first term had expired on September 20.

Mr. F. S. Hutton was appointed District Engineer on February 21, 1949, Mr. R. Kerr, Legal Adviser on March 16, 1949, Mr. M. E. Burwash, Assistant Director, Bureau of Transportation Economics, on May 30, 1949, Mr. R. J. Davis, District Inspector on July 16, 1949, and Mr. H. R. Cawley, B.Sc., M.E.I.C. was promoted to the position of Mechanical Assistant on September 1, 1949.

A list of the present and former members of the Board appears at Appendix "A".

APPENDIX "A"

LIST OF MEMBERS OF THE BOARD WHO HAVE SERVED OR ARE SERVING ON THE BOARD

Member's Name	Office	Appointment	Termination
Hon. A. G. Blair, K.C.....	Chief.....	Feb. 1, 1904...	Oct. 31, 1904 (resigned)
Hon. M. E. Bernier.....	Deputy.....	Feb. 1, 1904...	Jan. 31, 1914 (served term)
James Mills.....	Commr.....	Feb. 1, 1904...	Jan. 31, 1914 (served term)
Hon. A. C. Killam, K.C.....	Chief.....	Feb. 6, 1905...	Mar. 1, 1908 (died)
Hon. J. P. Mabee, K.C.....	Chief.....	Mar. 28, 1908...	May 6, 1912 (died)
D'Arcy Scott.....	Ass't.....	Sept. 17, 1908...	Sept. 16, 1918 (served term)
S. J. McLean.....	Commr.....	Sept. 17, 1908...	Sept. 16, 1918 (reappointed)
Hon. Thos. Greenway.....	Commr.....	Sept. 17, 1908...	Oct. 30, 1908 (died)
A. S. Goodeve.....	Commr.....	April 4, 1912...	Nov. 22, 1920 (died)
Henry L. Drayton, K.C.....	Chief.....	July 1, 1912...	Aug. 1, 1919 (resigned)
Hon. W. B. Nantel, K.C.....	Deputy.....	Oct. 20, 1914...	Oct. 19, 1924 (served term)
A. C. Boyce, K.C.....	Commr.....	Oct. 4, 1917...	Oct. 3, 1927 (served term)
Dr. J. G. Rutherford, C.M.G.....	Commr.....	Sept. 17, 1918...	July 24, 1923 (died)
Hon. F. B. Carvell, K.C.....	Chief.....	Aug. 2, 1919...	Aug. 9, 1924 (died)
S. J. McLean, LL.B.....	Commr.....	Sept. 16, 1918...	Sept. 15, 1928 (reappointed)
Calvin Lawrence.....	Ass't.....	Aug. 6, 1919...	
Hon. Frank Oliver.....	Commr.....	Nov. 4, 1921...	May 4, 1931 (died)
Hon. H. A. McKeown, K.C.....	Commr.....	Sept. 21, 1923...	Sept. 20, 1928 (reached age of 75)
Thomas Vien, K.C.....	Chief.....	Sept. 16, 1924...	Feb. 28, 1931 (resigned)
Hon. T. C. Norris.....	Deputy.....	Sept. 5, 1925...	Jan. 31, 1931 (resigned)
S. J. McLean, LL.B.....	Commr.....	Mar. 30, 1928...	Mar. 29, 1938 (served term)
John A. Stoneman.....	Ass't.....	Sept. 17, 1928...	Sept. 16, 1938 (served term)
Hon. C. P. Fullerton, K.C.....	Commr.....	Mar. 12, 1929...	Mar. 11, 1939 (reappointed)
F. A. Labelle.....	Chief.....	Aug. 13, 1931...	Dec. 31, 1933 (resigned)
G. A. Stone.....	Deputy.....	Dec. 16, 1931...	July 15, 1933 (died)
F. Nap. Garceau, K.C.....	Commr.....	Dec. 16, 1931...	Dec. 15, 1941 (reappointed)
Hon. Hugh Guthrie, K.C.....	Deputy.....	Sept. 16, 1933...	Apr. 10, 1943 (reached age of 75)
Hugh Wardrope.....	Chief.....	Aug. 12, 1935...	Nov. 3, 1939 (died)
John A. Stoneman.....	Ass't.....	Nov. 8, 1938...	Nov. 8, 1948 (reappointed)
F. M. MacPherson.....	Commr.....	Mar. 11, 1939...	Mar. 10, 1949 (served term)
J. A. Cross, Col. D.S.O., K.C.....	Commr.....	Sept. 21, 1939...	Sept. 20, 1949 (reappointed)
G. A. Stone.....	Chief.....	April 1, 1940...	June 30, 1948 (resigned)
Armand Sylvestre, K.C., LL.B.....	Commr.....	Dec. 15, 1941...	July 1, 1947 (reached age of 75)
Hon. Mr. Justice M. B. Archibald.....	Deputy.....	April 18, 1945...	April 17, 1955
H. B. Chase, C.B.E.....	Chief.....	July 1, 1948...	June 30, 1958
Hugh Wardrope.....	Commr.....	July 28, 1948...	July 27, 1958
William J. Patterson.....	Ass't.....	Nov. 8, 1948...	Nov. 7, 1958
Frank M. MacPherson.....	Commr.....	April 28, 1949...	April 27, 1959
	Commr.....	Sept. 21, 1949...	Sept. 20, 1959

APPENDIX "B"

(1) Since the establishment of the Board, its jurisdiction has been extended to the following matters:—

- (a) Bridges—3 Edw. VII, C.58, S.8 and R.S. Can. 1927, C.20.
- (b) Express tolls—6 Edw. VII, C.42, S.27, 1906.
- (c) Telegraph companies—C.61, 1908, S.4.
- (d) Telephone companies—6 Edw. VII, C.42, S.30.
- (e) Radio—1938 Can. Statutes, C.50, S.6.
- (f) International bridges and tunnels—1929, C.54.
- (g) Maritime Freight Rates Act—1927, C.44.
- (h) Abandonment of Operation of railway lines—1933, C.47 (S.165A).
- (i) Canadian National-Canadian Pacific Act, 1933, C.33.
- (j) The Transport Act, 1938, C.53—(Licensing and rate regulation of ships; agreed charges).
- (k) Agreements—(S.35 of present Act)—8-9 Edw. VII, C.32, S.1.
- (l) Purchase of electrical energy from a person who has acquired water power under lease from the Crown (S.374 of present Act)—1909, C.31, S.1.
- (m) Railway Grade Crossing Fund (S.262 of present Act)—1909, C.32, S.7.
- (n) The Pipe Lines Act, 13 Geo. 6, Chap. 20, 1949.

(2) Since 1923 the jurisdiction of the Board has been extended to the following railways:—

Hudson Bay Railway.

Intercolonial.

Prince Edward Island.

National Trans-Continental.

Lake Superior Branch (Leased from G.T.P.R.).

Quebec North Shore and Labrador Railway.

(3) In addition to the above there are a number of Acts which gave the Board jurisdiction over particular companies in certain specified matters.

APPENDIX "C"

February 1, 1950.
T.D. 7206.

Memorandum to the Secretary:

Enclosed herewith are five copies of this Department's Annual Report for the year ended December 31, 1949.

A. S. KIRK,
Director.

REPORT OF THE DIRECTOR, TRAFFIC DEPARTMENT,
FOR THE YEAR ENDED DECEMBER 31, 1949

Submitted herewith for the Board's Forty-Fifth Annual Report is a summary of the work of the Traffic Department for the year ended December 31, 1949.

TARIFFS

Tariff schedules, including amendments, filed by Rail and Water carriers, Communication Companies and International Bridge Companies in conformity with the law, are in the custody of this Department, which deals with all matters concerning them.

During the year under review, the number of tariffs for freight and passengers of Rail and Water carriers, Agreed Charges, Express, Telephone, Telegraph, Sleeping and Parlor Car and International Bridge tolls filed with the Board, was as follows:—

FROM JANUARY, 1949 TO AND INCLUDING DECEMBER 31, 1949

FREIGHT

<i>Rail—</i>		Total
Local Tariffs.....	1,559	
Supplements.....	660	
	<hr/>	2,219
Joint Tariffs.....	167	
Supplements.....	5,018	
	<hr/>	5,185
International Tariffs.....	553	
Supplements.....	22,437	
	<hr/>	22,990
		<hr/>
		30,394
<i>Water Carriers—</i>		
Local Tariffs.....	27	
Supplements.....	82	
	<hr/>	109
Joint Tariffs.....	5	
Supplements.....	29	
	<hr/>	34
International Tariffs.....	4	
Supplements.....	14	
	<hr/>	18
		<hr/>
		161
<i>Agreed Charges—</i>		
Tariffs.....	6	
Supplements.....	28	
	<hr/>	34

TRANSPORT COMMISSIONERS OF CANADA

FROM JANUARY, 1949 TO AND INCLUDING DECEMBER 31, 1949
—Continued

PASSENGER

Rail—

Local Tariffs.....	206	
Supplements.....	395	
		691
Joint Tariffs.....	235	
Supplements.....	564	
		799
International Tariffs.....	354	
Supplements.....	1,025	
		1,379
		2,869

Water Carriers—

Local Tariffs.....	30	
Supplements.....	6	
		36
Joint Tariffs.....	1	
Supplements.....	1	
		2
International Tariffs.....	2	
Supplements.....	1	
		3
		41

Sleeping and Parlor Car—

Local Tariffs.....	4	
Supplements.....	8	
		12
Joint Tariffs.....	0	
Supplements.....	12	
		12
International Tariffs.....	10	
Supplements.....	25	
		35
		59

EXPRESS

Local Tariffs.....	140	
Supplements.....	397	
		537
Joint Tariffs.....	92	
Supplements.....	249	
		341
International Tariffs.....	950	
Supplements.....	299	
		1,249
		2,127

TELEPHONE

Local Tariffs.....	19	
Supplements.....	241	
		260
Joint Tariffs.....	3	
Supplements.....	1,140	
		1,143
		1,403

TELEGRAPH

Tariffs.....	6	
Supplements.....	27	
		33

Combined Totals of all schedules..... 37,121

Underlying the requirements as to the filing of joint tariffs, are documents known as "Concurrences". These documents are issued by carriers in Canada in respect of tariffs of other carriers in which the concurring carrier is a participant. Such concurrences are required by Section 336 of the Railway Act and by the Board's regulations made under the Transport Act of 1938. During the year 1949, 508 Concurrences were filed and 22 Revocations received.

Under certain conditions, tariffs are issued and filed by agents for the carriers concerned. In such cases, the carriers execute Powers of Attorney, appointing such Agent, which documents are also filed with the Board, as required by Sections 336 and 341 of the Railway Act and by the Board's regulations made under the Railway Act and The Transport Act, 1938. During the year 1949, 379 Powers of Attorney were so filed and 47 Revocations were received.

Due to the establishment of new industries or by reason of new products, changes in source of supply, competitive conditions, and many other reasons, tariffs are constantly being revised, resulting in the filing as above outlined of 37,121 schedules. This coupled with the supporting Powers of Attorney and Concurrences, totalled 38,077.

Two general rate increases were authorized by the Interstate Commerce Commission which affected all joint international rates between Canada and the United States; also during the year Canadian carriers were granted a general increase in Canadian rates. The international rate changes have created considerable difficulties in extracting rates from the carriers' tariffs as well as increasing considerably the volume of tariff filings. This Department's staff, in addition to recording and filing the tariff schedules above referred to, is called upon to furnish information with respect to almost every class of service for which tariffs are provided. The demands for such information during the past year have been very heavy. The greatest care and exactitude is exercised to keep the records in readiness for all demands made upon the Board for such type of information. The paragraphs which follow indicate some of the main features with which the Department has been dealing.

FREE TRANSPORTATION

The issuance of free transportation by carriers subject to the Railway Act and The Transport Act, 1938, involves an audit of such issuance by the Board. Questions involving misuse of free transportation or issuance for which no authority has been granted, are investigated and to the extent found necessary, corrective action is dealt with by this Department.

CORRESPONDENCE

Communications emanating from this Department during the year totalled 3,635 of which 973 were memoranda and reports to the Board, 2,523 to carriers subject to the Board's jurisdiction, and 139 to others. All of these communications relate to the administrative functions of this Department in carrying out the Board's specific and general directions and involve principally matters of interpretation of tariffs and classifications, filing of tariffs, Powers of Attorney, concurrence, free or reduced rates and the administration of the Maritime Freight Rates Act.

MARITIME FREIGHT RATES ACT

The Maritime Freight Rates Act, 1927, requires the approval by the Board of all tariff schedules filed pursuant thereto; it also requires, except in the case of the Canadian National Railways, that the Board certify the normal tolls which, but for the Act, would have been effective and to also certify to the Minister of Transport the amount payable as reimbursement to the carriers in compensation for the statutory reduction in rates.

All of the duties so involved are handled by this Department and require that the carriers report to the Traffic Department each individual shipment which moves under the provisions of the Act, the rate which was charged, and the rate which would normally apply but for the Act. Such statements require that every shipment be checked as to Freight Classification, weight, rate and extension.

For the period from July 1, 1948 to June 30, 1949, inclusive, there were filed 22,829 statements with an average of 74 rates per sheet, approximately 1,689,346 rates which were individually checked and revised where necessary. Of the statements so filed, there were approximately 844,673 extensions of charges which required checking, and 22,829 columns of figures to be added.

Resulting from this check, 10,505 corrections were made to the Railways' applications for reimbursement. The total amount of reimbursement claimed by the Railways was \$1,284,333.60 and the total amount allowed was \$1,263,060.96 or a net deduction of \$21,272.64. During this period 145 Orders were issued, approving tariffs or rates and certifying as to normal tolls.

AGREED CHARGES (PART V, THE TRANSPORT ACT)

At December 31, 1949, 24 Agreed Charge Tariffs were in effect, applicable to 102 shippers.

During the year 1949, 4 new Agreed Charges were submitted to the Board and approved. Twelve applications were received for the Board to fix charges the same as agreements already in effect.

The following Orders were issued with respect to Agreed Charges during the year under review:

- 71881, *January 20*.—Approving Agreed Charge for the transportation of petroleum products of Muskoka Oils Ltd., carried by Canadian National Railways from Toronto to Huntsville, Ont.
- 71972, *February 8*.—Approving amendment to Agreed Charge between C.N.R., C.P.R. and McColl-Frontenac Oil Co. Ltd. covering transportation of petroleum products.
- 72077, *March 1*.—Directing, upon the application of Hales H. Ross and Sons Company, the fixing of charges upon the same basis and upon the same conditions as the Agreed Charge approved by Order 59787, dated October 18, 1940, with the increases authorized by Order 70480, dated April 8, 1948, for the transportation of lumber and forest products shipped by the Applicant from Spurfield, Alta.
- 72106, *March 3*.—Directing, upon the application of the Canadian Mineral Spirits Company, Ltd., the fixing of charges upon the same basis and upon the same conditions as the Agreed Charge approved by Order 59714, dated October 2, 1940, as modified by Order 71599, dated November 30, 1948, for the transportation of Naptha and Naptha Solvents shipped by the applicant from Montreal, P.Q.
- 72107, *March 3*.—Directing, upon the application of Canadian Mineral Spirits Company, Ltd., the fixing of charges upon the same basis and upon the same conditions as the Agreed Charge approved by Order 59568, dated August 29, 1940, with the increases authorized by Order 70480, dated April 8, 1948, for the transportation of Naptha and Naptha Solvents shipped by the applicant from Clarkson's, Sarnia and Toronto.
- 72206, *March 28*.—Directing, upon the application of Atlas Lumber Co. Ltd., the fixing of charges upon the same basis and upon the same conditions as the Agreed Charge approved by Order 59787, dated October 18, 1940, with the increases authorized by Order 70480, dated April 8, 1948, for the transportation of lumber and forest products shipped by the Applicant from Rocky Mountain House, Harlech and Spur Mileage 141.75 of the C.N. Rlys., Brazeau Subdivision, Alberta.
- 72483, *May 27*.—Directing, upon the application of the McColl-Frontenac Oil Co. Ltd., the fixing of charges upon the same basis and upon the same conditions as the Agreed Charge approved by Order No. 59714, dated October 2, 1940, as amended by Order No. 71599, dated November 30, 1948, for the transport of petroleum products from the marine terminal of the McColl-Frontenac Oil Company, Ltd. at Rimouski, Quebec, to railway stations and/or destinations in the Province of Quebec.

- 72541, *June 8*.—Directing upon the application of Trinidad Leaseholds (Canada) Ltd., the fixing of charges upon the same basis and upon the same conditions as the Agreed Charge approved by Order No. 59568, dated August 29, 1940, with the increases authorized by Order No. 70480, dated April 8, 1948, for the transport of petroleum products from Whitby, Ont. to the stations and/or places referred to in the said Agreed Charge.
- 72668, *July 4*.—Directing upon the application of Nellie Galay the fixing of charges upon the same basis and the same conditions as the Agreed Charge approved by Order No. 60373, dated February 26, 1941, with the increases authorized by Order No. 70480, dated April 8, 1948, for the transport of eggs from Pine River, Man., to Winnipeg, Man.
- 72778, *July 19*.—Directing upon the application of the British American Oil Company the fixing of Agreed Charge between certain Railway Companies and the British American Oil Co. Ltd., for the transport of petroleum products shipped from B.A. Marine Terminal at Chicoutimi, Que., to points in Quebec Province.
- 72779, *July 19*.—Directing upon the application of the Shell Oil Company the fixing of an Agreed Charge between certain Railway Companies and the Shell Oil Company for the transport of petroleum products from the Shell Oil Marine Terminal at Rimouski, Que., to points in Quebec Province.
- 72882, *August 5*.—Directing upon the application of the Imperial Lumber Co. Ltd., the fixing of charges upon the same basis and the same conditions as the Agreed Charge approved by Order No. 59787, dated October 18, 1940, with the increases authorized by Order No. 70480, dated April 8, 1948, for the transport of lumber and forest products from Mileage 16 Edson Subdivision of the C.N. Rlys. to the stations referred to in the said Agreed Charge.
- 72956, *August 19*.—Approving Agreed Charge between the Imperial Oil Ltd. and McColl-Frontenac Oil Co. Ltd., and rail carriers on petroleum products from Calgary, Alta., and Valessio, Alta., to points on the Northern Alberta Railways.
- 72989, *August 25*.—Approving Agreed Charge between rail carriers and Dominion Salt Co. Ltd., on Salt from Sarnia, Ont., to Beauharnois, Que., via C.N.R., C.P.R., Chesapeake and Ohio Rly. and N.Y.C. R.R.
- 73088, *September 16*.—Directing upon the application of Chas. I. Edwards Estate the fixing of charges upon the same basis and the same conditions as the Agreed Charge approved by Order 59787, dated October 18, 1940, with the increases authorized by Order 70480, dated April 8, 1948, for the transport of lumber and forest products from Rocky Mountain House, Horburg and Phoenix, Alberta, to the stations referred to in the said Agreed Charge.
- 73190, *October 6*.—Approving Agreed Charge between the C.N. Rlys. and the Shell Oil Company on petroleum products from Gaspé to Chandler, Que.
- 73406, *November 9*.—Continuing approval of Agreed Charge tariff C.T.C. (A.C.) No. 36, subject to modifications set out in Supplement 5.
- 73407, *November 9*.—Continuing approval of Agreed Charge tariff C.T.C. (A.C.) No. 37, subject to modifications set out in Supplement 3.
- 73526, *November 25*.—Approving Agreed Charge on Soda Ash, carloads, shipped by the Aluminum Company of Canada from Amherstburg, Ont., to Arvida, Que.
- 73645, *December 7*.—Approving Supplement 10 to Agreed Charge Tariff C.T.C. (A.C.) No. 11.
- 73649, *December 16*.—Approving amendment to Agreed Charge Tariff C.T.C. (A.C.) No. 25.
- 73689, *December 23*.—Approving amendment to Agreed Charge Tariff C.T.C. (A.C.) No. 34.
- 73693, *December 27*.—Approving amendment to Agreed Charge Tariff C.T.C. (A.C.) No. 10.
- 73694, *December 27*.—Approving amendment to Agreed Charge Tariff C.T.C. (A.C.) No. 7.
- 73695, *December 27*.—Approving amendment to Agreed Charge Tariff C.T.C. (A.C.) No. 8.
- 73696, *December 27*.—Approving amendment to Agreed Charge Tariff C.T.C. (A.C.) No. 19.
- 73697, *December 27*.—Approving amendment to Agreed Charge Tariff C.T.C. (A.C.) No. 12.
- 73698, *December 27*.—Approving amendment to Agreed Charge Tariff C.T.C. (A.C.) No. 32.
- 73708, *December 29*.—Approving amendment to Agreed Charge Tariff C.T.C. (A.C.) No. 17.
- 73724, *December 30*.—Directing upon the application of Lebacken Planing Mills, the fixing of charges upon the same basis and the same conditions as the Agreed Charge approved by Order 59787, dated October 18, 1940, with the increases authorized by Order 70480, dated April 8, 1948, for the transport of lumber and forest products from High Prairie, Alta., to the stations referred to in the said Agreed Charge.

WATER TRANSPORTATION (PART II, THE TRANSPORT ACT)

Great Lakes

Eleven licences were granted to ten water carriers, applicable to eighty ships on the Great Lakes, all covering services within Canada and within the territory extending from the head of the Great Lakes to the west end of the Island

of Orleans. Of these ships, two are licensed to transport passengers only, sixty-four to transport goods only and fourteen to transport passengers and goods.

MACKENZIE RIVER

Licences issued with respect to ships operating within the Mackenzie Watershed during the year 1949 totalled 146 vessels, details of which are as follows:—

<u>Licensee</u>	<u>Ships Licensed</u>
Hudson's Bay Company.....	25
Northern Transportation Co. (1947) Ltd.....	75
O'Sullivan and Stigsen River Transportation.....	2
McInnes Products Corporation Ltd.....	31
Philip D'Aoust.....	1
Yellowknife Transportation Co. Ltd.....	11
D. F. Sheck.....	1
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There was a decrease of 13 ships so licensed from the previous year.

YUKON RIVER

By proclamation to The Transport Act, 1938, dated December 21, 1948, the Board's jurisdiction was extended effective January 8, 1949, to all ships of over 500 tons gross tonnage operating for hire and reward in respect of the Yukon River and its tributary waters within the Yukon Territory.

Licence was issued to the British Yukon Navigation Company to operate seven ships within the said area, and in conformity with the requirements of the Act, the British Yukon Navigation Company filed tariffs of tolls for the first time. Such tariffs are open for inspection by the public and the tolls therein are subject to the Board's direction upon appropriate proceedings.

APPLICATIONS AND COMPLAINTS DEALT WITH BY THE TRAFFIC DEPARTMENT DURING THE YEAR ENDED DECEMBER 31, 1949

- 29159.693—Application of William Kulachuk, Montreal, for telephone service.
- 4214.148—Application of Commercial Sign & Ticket Co., Billings Bridge, Ont., for free express cartage service.
- 10041.121.5—Application of Dept. of Mines and Natural Resources, Air Service, Lac du Bonnet, Man., concerning radio rates.
- 4214.95—Application of Al L. Adams, Dept. of Mines and Resources on behalf of Mr. C. Melvin Scott, Edmonton, Alta., requesting an extension of the free express delivery service to his residence.
- 4214.1616—Request of the Village of Grande Baie, Que., for the establishment of free express delivery service.
- 9574—Application of Rand H. Matheson relating to the question of applying combination rates where such combination is lower than the published through rate.
- 45734—Application of J. N. Galonsky, Melnice, Man., et al., concerning the freight rates on farm implements from Eastern to Western Canada.
- 89422.2—Application of Canadian Pulp & Paper Association concerning export and import rates which may be subjected to increases as under Ex Parte 168 as authorized by Board's order No. 71774.
- 45397.1—Application of Canadian Council for Reconstruction through UNESCO for free transportation or reduced rates on shipments of books collected at the larger cities throughout Canada for shipment to Halifax.
- 45743—Application of Railway Association of Canada for approval of Railways' Standard Passenger Tariffs.
- 26901.03—Application of W. H. Nasi, Driftwood Lands & Timber Ltd., Sault Ste. Marie, Ont., with respect to rate on pulpwood from Peterbell to Michipicoten Harbour.

- 35909.1—Resolution from James Paul, Secretary, Alberta Provincial Horse Breeders' Ass'n. and H. E. Saelter, Sec.-Treasurer, Canadian Percheron Ass'n., concerning freight rates on horses.
- 40994.29—Application of Canadian Freight Ass'n., for approval of Agreed Charge between Canadian National Railway Company and Muskoka Oil Products Limited.
- 30380—Application of G. H. Griffin, Manager, Express Traffic Association, for approval of proposed new table of Graduated First and Second Class Express charges.
- 45757—Application of Clive Planta, Fisheries Council of Canada, et al. concerning an alleged increase in express rates on fish.
- 44482—Application of Purity Flour Mills, Ltd., Toronto, concerning rates on Cereal Grass from Chilliwack, B.C. to Fort William, Ont.
- 42780—Complaint of The Stanley Works of Canada, Ltd., Hamilton, Ont. et al. respecting Supplement No. 78 to Canadian Freight Association tariff 1-H, C.T.C. No. 1312.
- 45546—Application of Mr. H. J. Lassaline, Secretary-Manager of the Windsor Chamber of Commerce, with respect to increase in express rates on drugs and related items from Windsor, Ont.
- 42076.42—Water carriage on the Yukon River and its tributary waters within the Yukon Territory subject to the Transport Act, 1938.
- 4214.744—Application of the Town Manager, of the Town of Dalhousie, N.B., with regard to extension of the express delivery area.
- 29064.13—Application of Mr. M. Porter, Calgary, Alta., regarding rates on Salt from Lindbergh, Alta.
- 45235—Application of Maritime Board of Trade on behalf of the Prince Edward Island Potato Shippers Advisory Ass'n., et al, regarding rates on potatoes.
- 955.169—Complaint of Dictaphone Corporation, New York City, regarding schedule of charges for a recorder-connector unit proposed by the Bell Telephone Co.
- 40994.27—Agreed Charge—Petroleum Products, Fort William to Saskatchewan account McColl-Frontenac Oil Co. Ltd.
- 12758.138—Enquiry of Mrs. Strum, M.P., regarding railway freight and express rates, also sleeping and parlour car fares.
- 18540.70—Enquiry of Miss Ruth McEown, Moose Jaw, Sask., regarding freight rates in Canada and decisions of the Board.
- 45771—Enquiry of Mr. C. P. Wyman, Portneuf, Que., concerning the matter of freight rates from Portneuf to various destinations.
- 45757.1—Application of The Co-Operative Fruit Growers Ass'n. of Wynndel, B.C. concerning an alleged increase in express rates on soft fruit.
- 43356.8—Maximum Carloading Regulations and Penalty Charges.
- 1700.442—Application of The Fort William Chamber of Commerce concerning car demurrage.
- 27001.22—Application of Canadian Secondary Materials Ass'n. concerning items 445 and 450 of Canadian Freight Ass'n. Eastern Lines Tariff C.T.C. 545.
- 3574.509—Application of C. C. Szenkovits, for telephone service at Lac Novie, Que.
- 33526.2—Enquiry of Newfoundland Canada Steamships Ltd., concerning result of bringing Newfoundland into Confederation.
- 17112.51—Application of T. R. Pogue, Riverside, Ont., in regard to increased freight rates on popping corn between points in Eastern Canada.
- 10041.131—Application of the Department of National Defence for establishment of rates on telegraph traffic filed by the Department containing figures counted on the basis of $1\frac{1}{2}$ words for each group of five figures.
- 45785—Application of Mr. O. S. A. Lavallee, Montreal, regarding passenger fares between Montreal and Mount Royal and other stations in the Montreal suburban area.
- 30686.15—Application of Master Baker Flour Mills, Ltd., Vancouver, for export rates on wheat converted into macaroni products.
- 29159.693—Application of Mr. Guerino Sabetta, Montreal, for telephone service.
- 4214.390—Application of the Express Traffic Association for approval of Express Merchandise
- 4397.128—Receipt, Supplement 16 to Express Classification for Canada No. 8 and Graduated
- 30380—Table No. 3.
- 4214.721—Application of Mr. David Boucher that the Village of Ste. Anne de Chicoutimi be considered part of Chicoutimi for express delivery service.
- 1179.56—Application of Canadian Pacific Rly. for approval of Supplement 1 to Standard Mileage Freight Tariff C.T.C. No. E-5089.
- 548.32—Application of Canadian National Railways for approval of Supplement 1 Standard Mileage Freight Tariff C.T.C. No. E-3930.
- 40996—Jurisdiction of the Board under the Transport Act with respect to Yukon Territory.

- 42082.1—Applications of Canada Steamship Lines, Northwest Steamships Ltd. and Canadian
42082.3—Pacific Railway for approval of Standard Freight Tariffs applicable in the Great
42082.7—Lakes area.
- 32560—Application of A. G. Brime, City Clerk, New Westminster, concerning B.C. Telephone
Company toll charges between New Westminster and Vancouver.
- 3574.511—Complaint of A. R. Grimwood complaining about telephone service of the British
Columbia Telephone Company.
- 19475.127—Complaint of A. George Goldberg, Montreal, with respect to charges on two ship-
ments of scrap aluminum forwarded from Montreal to Cleveland.
- 666—Complaint of Canadian Pulp and Paper Association re Export Rates increased under
Ex Parte 168.
- 1700.430—Complaint of G. E. Barbour Co., St. John, N.B., concerning demurrage which accrues
on shipments of peanuts held pending analysis of samples taken therefrom.
- 1306.2—Complaint of Mr. Fernand Villeneuve, Secretary, Le Syndicat N.C. du Textile de
Montmorency Inc., regarding increases in fares on the Quebec Railway Light & Power Co.
- 2030.6—Application for approval of Standard Mileage Freight Tariff of British Yukon Rly.—
British Columbia Yukon Rly. and application for authorization of Northern Classification
No. 7.
- 45797—Application of Canned Foods Association of British Columbia, for suspension of tariffs
providing for cancellation of rates on sugar tailings to points in the Okanagan Valley.
- 8641.84—Application of J. O. Gour, M.P., with respect to stop-off arrangement on shipments
of flax between stations in Ontario and Quebec.
- 7287.28—Application of Mr. Lionel Bertrand, M.P., with respect to commutation tickets between
Montreal and St. Jerome.
- 4205.780—Complaint of Charles Wade, concerning cartage delivery service at Bangor, Sask.
- 24433—Application of S. C. McLennan, Manitoba Winter Fair, regarding rates and conditions
for the carriage of livestock for exhibition purposes.
- 29159.693—Application of Mrs. Dolores Pepin, Montreal, for telephone service.
- 18540.4—Enquiry of P. R. Craven, Northern Telephone Company, New Liskeard, Ont., as
to toll rates from Fort Frances, Ont., to various points.
- 44080—Enquiry of Mayor Laeroix of the Municipality of the Village of Saindon, Sayabec,
P.Q., with regard to publication of railway rates to meet highway competition.
- 37501.1—Application of John C. Read, Elmira, Ont., with respect to rate on superphosphate,
carloads, from Buffalo, N.Y., to Elmira, Ont.
- 24433—Submission of T. H. McLeod, Manager, Regina Agricultural & Industrial Exhibition
Association, et al, that the railways intend to discontinue subnormal rates on Exhibition
livestock, effective May 15, 1949.
- 45268.4—Violations of The Transport Act by R. Porritt, Yellowknife, N.W.T.
- 39871—Complaint of St. Lawrence Sugar Refineries Ltd., and Canada & Dominion Sugar Com-
pany, concerning rates on sugar from Montreal to become effective April 15, 1949.
- 29159.693—Application of Mr. Lionel Bourdon, Riviere des Prairies, P.Q., for telephone service.
- 45619—Enquiry of R. C. Anthony, Managing Director, Steers Insurance Agencies Ltd., St.
Johns, Newfoundland, with regard to application of terms and conditions of bill of lading.
- 26054.2—Complaint of the Ontario Cheese Producers' Marketing Board against rates on cheese.
- 1700.444—Application of the Tomlinson Construction Co. Ltd., St. Boniface, Man., with respect
to car demurrage charges.
- 18155.3—Application of Canadian Pacific and Canadian National Railways requesting approval
of release of liability in connection with the carriage of U.S. mail by freight between Vancouver
and Dawson Creek.
- 45757.1—Complaint of Maritime Fruit and Vegetable Jobbers Association with respect to express
rates on fruits and vegetables from Ontario points to destinations in the Maritime Provinces.
- 1822—Complaint of R. F. Cream & Co. Ltd., Quebec, regarding cancellation of special commodity
rates on beans from Ontario points to Quebec.
- 33365.72—Application of Imperial Tobacco Sales Co. of Canada requesting that cigarettes be
accorded a carload rating of 3rd class in the Canadian Freight Classification.
- 27008.96—Complaint of I. L. Selig & Sons Ltd., Montreal, concerning alleged shortage in the
contents of a car of scrap steel from Montreal to Sault Ste. Marie.
- 40994.30—Application of Canadian Freight Association for approval of an Agreed Charge on Salt,
in bulk, carloads, from Sarina, Ont. to Beauharnois, Que., account Dominion Salt Company.

- 43356.10—Application of Continental Can Company of Canada requesting relief from the assessment of penalty charges contained in Canadian Freight Association tariff C.T.C. No. 1416.
- Application of Alaska Freight Lines, Inc., concerning application of penalty demurrage charges on cars held at Dawson Creek awaiting transfer to highway trucks.
- 24601.7—Application of Canadian Furnace Limited, Port Colborne, Ont., for commodity rates on pig iron from Buffalo to various points in Ontario.
- 42076—Application of Monsen-Clarke Limited, Montreal, for proposed lake service from Lake Michigan to Quebec.
- 32560.31—Complaint of W. E. Lucas, Trail, B.C., concerning charges of the British Columbia Telephone Co.
- 3574.511—Complaint of Mrs. George Annis, Invermere, B.C., regarding telephone service.
- Case 538—Proposed amendment of Connecting Agreements of the Bell Telephone Company.
- 45865—Application of Canada Steamship Lines for disallowance of Sarnia Steamships Limited competitive tariff C.T.C. No. 13.
- 19475.128—Application of The Maritime Federation of Agriculture concerning the 10,000 pound minimum carload weight on livestock formerly on movements within the range of 200 miles.
- 40994.3—Application of Trinidad Leaseholds (Canada) Ltd., to fix a charge the same as Agreed Charge Tariff C.T.C. (A.C.) No. 11 from Whitby, Ont. on petroleum products.
- 40994.16—Application of McColl-Frontenac Oil Company to fix a charge the same as Agreed Charge Tariff C.T.C. (A.C.) No. 14 from Rimouski, Que., on petroleum products.
- 3574.511—Complaint of H. Wright, Glen Valley, B.C., regarding telephone service.
- 29159.595—Application of Mr. L. R. Hewitt, Peterborough, Ont., for telephone service.
- 29159.693—Application of Mr. A. W. G. Elliott, Montreal, for telephone service.
- 6713.143—Application for the establishment of an interchange at Port Dover, Ont.
- 44482—Complaint of H. H. Hannam, The Canadian Federation of Agriculture, et al, respecting rates on seeds and seed grain.
- 22589—Complaints of Messrs. H. W. Firth and F. A. Lederer, with respect to refund of unused portion of round-trip passenger tickets between Whitehorse and Dawson.
- 24433—Application of Saskatchewan Cattle Breeders' Association, et al, for suspension of increased rates on pedigree and exhibition livestock.
- 3574.512—Application of Mr. Stanislas Auger, Ste. Anne des Plaines, St. Joachim, Que., for telephone service.
- 18540.4—Application of the residents of Sainte Anne de Sabrevois, Que., for Bell Telephone service.
- 1700—Application of The Ontario Retail Lumber Dealers' Association for revision of the Canadian Car Demurrage Tariff.
- 42076.31—Licensing of the vessel M. V. "Yellowknife Expediter" by the Yellowknife Transportation Co.
- 18540.4—Application of Mr. Louis Z. Mercier, Grand River, Que., requesting telephone service.
- 6713.23—Enquiry of the City Clerk, Owen Sound, Ont., regarding collection of toll charge in respect of traffic moving over interchange tracks.
- 28281.38—Enquiry of Mr. H. Bertrand with respect to delivery service on express shipments arriving via C.P.R. at L'Annonciation, Que.
- 496.25.14—Enquiry of the High Commissioner for India, concerning concessions granted to the blind on Canadian railways.
- 3839.9—Enquiry of Mr. A. H. Ryckman, Byron Telephone Company regarding commissions on pay station tolls.
- 29159.693—Application of Mr. John A. LeClair, Overbrook, Ontario, for telephone service.
- 5901—Enquiry of Mr. Lucien Lamoureux with respect to freight rate on bags from Barraute to Rochebeaucourt, Que.
- 12780—Enquiry of Mr. F. T. W. Saunders, Toronto, concerning rates on drinking straws to the Pacific Coast.
- 5705.20—Application of Rayner Construction Limited, Moncton, N.B., requesting suspension of increased rates on gravel.
- 7425.193—Application of Dominion Steel & Coal Corporation, regarding freight to cover movement of coal from the McBean mine to the washery at Stellarton, N.S.
- 214.271—Enquiry of Mr. R. F. Parham concerning free cartage limits of the C. P. Express Company at Banff, Alta.
- 5268.5—Operation by C. W. Bumstead of a transport service by water from Fort Nelson to Aklavik, N.W.T.
- 397.129—Approval of Express Classification for Canada No. 9.

- 18540.35—Complaint of J. F. Hodge, Cassidy Hotel, B.C., about telephone service.
- 13622.7.10—Complaint of Melville Grant, Toronto, with regard to handling of a telegram from St. Catharines.
- 45925—Application of Saskatchewan Co-Operative Creamery Ass'n., North Battleford, Sask., concerning rates charged for the transportation of milk in baggage cars when the service involves a circuitous mileage.
- 44328—Application of B.C. Tree Fruits Ltd., Kelowna, B.C. for suspension of certain tariff provisions of the Canadian Pacific and Canadian National Railways.
- 40997.16—Application of Shell Oil Company of Canada to fix an Agreed Charge on Petroleum Products from Rimouski and Chicoutimi, Que.
- 42076.41—Issuance of Licence No. C.T.C. (W.T.) 192 to O'Sullivan and Stigsen, Peace River, Alta., and the filing of tariffs.
- 3839.9—Interchange of traffic between the Bell Telephone Company and the Byron Telephone Co. Ltd., and payment of commissions.
- 42076.35—Application of water licence by D. F. Sheek, Yellowknife.
- 19419—Application of Madelaine Mercure regarding passenger fares, teachers and students.
- 45950—Application of Saskatchewan Federated Co-Operative Ltd., with respect to application of freight rates on "Cinderete Chimney Blocks".
- 42082.34—Approval of Standard Freight Tariff, O'Sullivan & Stigsen, Peace River, Alberta.
- 19475.126—Enquiry of Mr. D. L. Bulger, R.R. No. 3, Eganville, Ont., concerning rates on livestock.
- 40996.13—Official Mileages of Water Carriers on the Yukon River and its tributary waters within the Yukon Territory.
- 37514.12—Application of Ontario Northland Transportation Commission requesting the Board to assume complete jurisdiction over the railway rates and tolls of the Ontario Northland Railway.
- 29159.693—Application of Mr. Antonio Parent, East Angus, P.Q. for telephone service.
- 40994.31—Application of Canadian Freight Association for approval of Agreed Charge on Petroleum Products from Calgary and Valesso, Alta. to points on the Northern Alberta Rly.
- 33365.145—Application of Courtaulds (Canada) Limited, for change in freight classification.
- 45962—Enquiry Marshall-Wells Co. Ltd., Port Arthur, Ont., concerning two less carload shipments originating at Chicago, Ill. and Lowell, Mich., forwarded to Port Arthur, via rail and lake route.
- 42780—Application of Mr. H. J. Ringrose (Hiram Walker & Sons) Walkerville, Ont., concerning rates on alcoholic liquors to Pacific Coast points.
- 1700.99.11—Application of Howard Smith Paper Mills, Montreal, for relief from payment of demurrage on sulphur dioxide.
- 29159.693—Application of Mrs. Henri Bernier, Mr. Rene Laporte and Mrs. A. Collin, Montreal, for telephone service.
- 26901.62.6—Application of British Columbia Lumber Manufacturers Ass'n. for suspension of proposed increased rates on lumber.
- 29159.693—Application of Dr. Andre Paranteau, Montreal, for telephone service.
- 42082.35—Approval of Standard Freight Tariff, Phil D'Aoust, Fort Resolution, N.W.T.
- 45268.4—Violations of The Transport Act, 1938, by Robert Porritt.
- 42076.44—Application of Robert Porritt, Hay River, N.W.T. for a water licence under The Transport Act.
- 3574.352—Application of Mr. A. Mathieu, Secretary-Treasurer of the Municipality of the Parish of St. Leonard de Port-Maurice for telephone service.
- 40994.13—Application from Saskatchewan Timber Board, Prince Albert, Sask., for participation in Agreed Charge C.T.C. (A.C.) 15.
- 44891—Application of Canadian Freight Association (Western Lines) for approval of release of responsibility on Sweet Clover Seed in bulk.
- 45268.5—Transportation by water in the Mackenzie River area by Bumstead & Sons, Dawson Creek, B.C.
- 18540.4—Application of H. Wellbourn, Sec.-Treasurer, Cawston, B.C. Board of Trade, for additional telephone service.
- 45582—Application of Canadian Collieries (Dunsmuir) Ltd. and Purity Flour Mills Ltd., with respect to increased freight rates.
- 29984.18—Application from Mayor of Hudson Heights, Que., et al, in regard to extension of Commuters' 50 trip ticket from a 30-day to a 40-day limitation.
- 40994.32—Application of Canadian Freight Association for approval of Agreed Charge between C.N. Rlys. and Shell Oil Company covering transportation of Petroleum Products from Gaspé to Chandler, Que.

- 18540.4—Complaint of Okanagan Falls, B.C. Board of Trade regarding telephone service.
- 3574.514—Complaint of Wm. Bourn, Dromore, Ont., concerning telephone service.
- 3574.515—Complaint of Okanagan Falls, B.C. Board of Trade with regard to telephone service.
- 3574.87.1—Enquiry of Mr. Beauregard regarding provisions with respect to directory listings in tariffs of the Bell Telephone Company.
- 3574.516—Application of Mrs. Donat Lepine, Three Rivers, Que., for telephone service.
- 29159.693—Application of Mr. J. Ovila Perreault, Montreal, for telephone service.
- 45067—Interswitching at Grand'Mere, Quebec.
- 45464—General Freight Rates Investigation—Equalization of rates as between Eastern and Western Canada.
- 24433.29—Enquiry of Mr. Norman Jane, Baltimore, Ont., concerning charges on a bull from Oak Hill, Ohio, to Cobourg, Ont.
- 38514.1—Approval of By-law authorizing the President of the Cornwall International Bridge Company to prepare and issue tariffs of tolls.
- 40994.28—Approval of Agreed Charge Tariff C.T.C. (A.C.) 37, as modified, with Husky Oil and Refining Ltd.
- 40994.4—Approval of Supplement 5 to Agreed Charge Tariff C.T.C. (A.C.) 36, as modified, with Imperial Oil Ltd., McColl Frontenac Oil Co. and North Star Oil Co.
- 42076.6—Application of Mr. Woods R. Streeper, Fort Nelson, B.C., for a water licence between Fort Nelson, B.C. and points on the lower Mackenzie River.
- 45582.1—Complaint of Mr. Seymour Frank, Montreal, with respect to increased rate on carload shipments of rags from Vancouver to Montreal.
- 45962—Enquiry of Mr. Charles A. Goodeve, Port Arthur, Ont., as to movement of shipments via route providing the lowest rate.
- 40994.30—Application of Canadian Industries Ltd. for a fixed charge on salt, in bulk, from Windsor, Ont. to Beauharnois, Que.
- 1700—Enquiry of Mr. Lew Wright, Toronto, Ont., regarding the imposition of demurrage charges.
- 34822—Maritime Freight Rates Act—substitution of highway for rail service.
- 45268—Recommendation for an amendment of Part II of The Transport Act insofar as it applies to remote areas.
- 29159.693—Application of Miss Colette Rivard, Montreal, for telephone service.
- 1700.99.9—Application of Steel Company of Canada, Ltd., Hamilton, Ont., for relief from Rule 1 of the Canadian Car Demurrage Rules.
- 40994.33—Application of Canadian Freight Association for approval of Agreed Charge between the Canadian National Rlys. and the Aluminum Company of Canada covering transportation of Soda Ash from Amherstburg and Quarries to Arvida, Que.
- 29159.693—Application of Mr. A. Juneau, Montreal, for telephone service.
- 26901.45—Enquiry of Hon. J. J. McCann concerning rates on pulpwood from Barry's Bay, Ont. to Johnsonburg, Pa.
- 8641.20.2—Application of J. E. Holdercroft & Co., McBride, B.C., concerning rates on cedar poles from McBride, B.C. to Port Arthur for preservative treatment and furtherance to Eastern Canada and U.S.
- 19475.129—Request of Medusa Products Co. of Canada Ltd. for a minimum carload weight of 50,000 pounds on shipments of Medusa White Portland Cement from Paris, Ont. to points in Canada.
- 46071—Application of Canadian Wallpaper Manufacturers Ltd. re establishment of rates by carriers to meet competitive market conditions.
- 3574.87—Complaint of the Specialty Company of Chesley, Ont., about listing in the telephone directory.
- 18540.4—Enquiry of Mr. K. Angel, Montreal, regarding non-payment of a telephone bill for directory advertising.
- 39362—Enquiry of Mr. L. C. Matthews with respect to posting of tariffs at railway stations for public inspection.
- 1306.2—Enquiry of the Mayor Provost of Beauport, Que., regarding proposed increase in passenger fares on the Quebec Railway, Light & Power Co.
- 19540.15—Application of the Wartime Prices and Trade Board requesting the Board to certify as to the freight rate on shipment of grapes from Lodi, Cal. to Toronto.
- 29159.693—Complaint of Aldas Duquette, Proprietor of Cap St. Martin Quarry, about telephone service, and application of Mr. W. Bilovus, Montreal, requesting telephone service.
- 30969.28—Complaint of the Gaspé-Bonaventure Hockey League in regard to excursion fares charged by the C.N. Rlys. on the Gaspé Coast.

- 40994.13—Application of the Lebacken Planing Mills for a fixed charge on lumber and forest products from High Prairie, Alta.
- 42082.1—Application of Canada Steamship Lines Ltd. for approval of Standard Mileage Freight Tariff.
- 42082.3—Application of Northwest Steamship Lines Limited for approval of Standard Mileage Freight Tariff.
- 42076.4—Application of Canada Steamship Lines Limited for a licence under Part II of the Transport Act, 1938, to provide suitable ships for the rail-lake and rail routing of the Canadian National Railways.
- 3574.511—Application of Arthur T. Hall, Vancouver, requesting telephone service.
- 38355.1—Application of Mr. L. J. Child, Traffic Manager, Polymer Corporation Ltd., concerning
- 38355.2— domestic rates on synthetic rubber from Sarnia, Ont.; also export rates on synthetic rubber from Sarnia.
- 18540.4—Complaint from Mrs. A. Dean, El Paso, Texas, alleging telephone interference.
- 3839.884—Enquiry of H. A. Shade, Secretary-Treasurer, Sioux Lookout Telephone Co. Ltd. regarding division of joint revenue with the Bell Telephone Company.

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- 71792, January 4.—Approving Supplement to Traffic Agreement between the Bell Telephone Company and the Harrietsville Telephone Ass'n. Ltd.
- 71796, January 4.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Sydney and Louisburg Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 71809, January 7.—Approving Traffic Agreement between the Bell Telephone Company and Les Pionniers de St. Marc.
- 71813, January 6.—Approving Appendix "A" to Traffic Agreement between the Bell Telephone Company and Perth and Christie's Lake Telephone Co. Ltd.
- 71814, January 6.—Approving Appendix "A" to Traffic Agreement between the Bell Telephone Company and the McCreary Telephone Co. Ltd.
- 71838, January 11.—Approving Supp. 2 to Traffic Agreement between the Bell Telephone Company and La Compagnie de Telephone de St. Amable et Ste. Jule.
- 71840, January 12.—Authorizing the issuance of Licence No. C.T.C. (W.T.) 181 to the Canadian Pacific Railway.
- 71858, January 17.—Amending Order No. 71737 with regard to approval of tolls in tariff filed by Dominion Atlantic Railway.
- 71865, January 19.—Approving revised Standard Mileage Passenger Tariffs of various railways.
- 71866, January 19.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Railway under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 71874, January 19.—Approving under Maritime Freight Rates Act tolls published in tariff filed by Sydney and Louisburg Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 71875, January 19.—Approving under Maritime Freight Rates Act tolls published in tariff filed by Dominion Atlantic Railway under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 71876, January 19.—Approving under Maritime Freight Rates Act tolls published in tariff filed by Dominion Atlantic Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 71881, January 20.—Approving Agreed Charge for the transportation of petroleum products of Muskoka Oils, Ltd., carried by Canadian National Rlys. from Toronto to Huntsville, Ont.
- 71900, January 20.—Disallowing rates on salt contained in Canadian National tariff C.T.C. No. W-1962.
- 71919, January 25.—Approving Supplement 2 to Traffic Agreement between Bell Telephone Company and Ernestown Rural Telephone Co.
- 71920, January 25.—Approving Appendix "A" to Traffic Agreement between Bell Telephone Company and La Compagnie de Telephone de Charlevoix Saguenay.
- 71930, January 26.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian National Railways under Sec. 3.
- 71935, January 31.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Railway under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 71945, January 31.—Amending Order No. 71900 re complaint of Dominion Tar & Chemical Co. respecting rates on salt from Lindbergh, Alta.

- 71955, February 2.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian National Rlys. under Sec. 3.
- 71967, February 5.—Authorizing the issuance of licence No. C.T.C. (W.T.) 183 to Sarnia Steamships Limited.
- 71971, February 5.—Authorizing the issuance of licence No. C.T.C. (W.T.) 184 to Colonial Steamships Limited.
- 71972, February 8.—Approving amendment to Agreed Charge between C.N.R., C.P.R. and McColl-Frontenac Oil Co. Ltd., covering transportation of petroleum products.
- 71975, February 5.—Authorizing the issuance of licence No. C.T.C. (W.T.) 182 to Hudson's Bay Company.
- 71995, February 10.—Approving Appendix "A" to Traffic Agreement between Bell Telephone Company and La Corporation de Telephone de Quebec.
- 71997, February 12.—Suspending tariffs of express companies covering increased rates on fish.
- 71999, February 10.—Authorizing issuance of licence No. C.T.C. (W.T.) 185 to Niagara, St. Catharines & Toronto Railway Co.
- 72003, February 15.—Suspending operation of Order No. 68756 and tariffs with regard to maximum loading of freight cars.
- 72018, February 17.—Authorizing issuance of licence No. C.T.C. (W.T.) 187 to Canada Steamship Lines.
- 72021, February 17.—Approving Agreement between Sioux Lookout Telephone Company and Red Lake Telephone Co. and Canadian National Telegraph Co.
- 72022, February 18.—Authorizing issuance of licence No. C.T.C. (W.T.) 188 to Northwest Steamships Ltd.
- 72023, February 18.—Approving Appendix "A" to Traffic Agreement between Bell Telephone Company and La Compagnie de Telephone de Gentilly.
- 72024, February 18.—Approving Appendix "A" to Traffic Agreement between Bell Telephone Company and La Compagnie de Telephone de Becancour.
- 72026, February 18.—Authorizing issuance of licence No. C.T.C. (W.T.) 186 to Canada Steamship Lines Ltd.
- 72031, February 19.—Approving under Maritime Freight Rates Act tolls published in tariff filed by Temiscouata Rly. under Sections 3 and 9 and certifying normal tolls for reimbursement purposes.
- 72035, February 22.—Authorizing issuance of licence No. C.T.C. (W.T.) 189 to the Ontario Car Ferry Company.
- 72065, March 2.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72067, March 1.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72077, March 1.—Directing, upon the application of Hales H. Ross and Sons Company, the fixing of charges upon the same basis and upon the same conditions as the Agreed Charge approved by Order 59787, dated October 18, 1940, with the increases authorized by Order 70480, dated April 8, 1948, for the transportation of lumber and forest products shipped by the Applicant from Spurfild, Alta.
- 72106, March 3.—Directing, upon the application of the Canadian Mineral Spirits Company, Ltd., the fixing of charges upon the same basis and upon the same conditions as the Agreed Charge approved by Order 59714, dated October 2, 1940, as modified by Order 71599, dated November 30, 1948, for the transportation of Naptha and Naptha solvents shipped by the Applicant from Montreal, Que.
- 72107, March 3.—Directing, upon the application of Canadian Mineral Spirits Company, Ltd., the fixing of charges upon the same basis and upon the same conditions as the Agreed Charge approved by Order 59568, dated August 29, 1940, with the increases authorized by Order 70480, dated April 8, 1948, for the transportation of Naptha and Naptha solvents, shipped by the Applicant from Clarkson's, Sarnia and Toronto.
- 72108, March 3.—Approving resolution of British Yukon Navigation Co. authorizing certain officers to prepare and issue freight and passenger tariffs.
- 72114, March 4.—Approving Supplement 1 to Standard Mileage Freight Tariff C.T.C. No. E. 5089 filed by the C.P.R.
- 72115, March 4.—Approving Supplement 1 to Standard Mileage Freight Tariff C.T.C. No. E. 3930 filed by the C.N. Rlys.
- 72119, March 4.—Approving Graduated Table No. 3 of 1st and 2nd class charges for shipments weighing 100 pounds and under filed by the Express Traffic Ass'n. of Canada.
- 72126, March 4.—Approving Supplement 16 to Express Classification for Canada No. 8 filed by the Express Traffic Ass'n. of Canada.

- 72154, *March 12*.—Approving Standard Freight Tariffs of maximum mileage tolls filed by Northwest Steamships Ltd., Canadian Pacific Rly. and Canada Steamship Lines Ltd.
- 72157, *March 15*.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N. Rlys. under Sec. 3.
- 72159, *March 16*.—Authorizing issuance of licence No. C.T.C. (W.T.) 190 to Northern Transportation Co. (1947) Ltd.
- 72163, *March 16*.—Approving revised page 23 of Standard Tariff C.T.C. No. 2 of Northern Transportation Co. (1947) Ltd.
- 72177, *March 22*.—Approving Standard Mileage Freight Tariff C.T.C. No. 54 of British Yukon Rly. Co.
- 72180, *March 24*.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72185, *March 23*.—Approving Supplement 2 to Traffic Agreement between the Bell Telephone Company and Ontario Provincial Department of Reform Institutions.
- 72186, *March 23*.—Authorizing issuance of Licence No. C.T.C. (W.T.) 191 to British Yukon Navigation Co.
- 72187, *March 22*.—Approving Supplements 2, 3 and 4 to Traffic Agreement between the Bell Telephone Company and Sioux Lookout Telephone Company.
- 72196, *March 22*.—Authorizing Northern Freight Classification No. 7 filed by the British Yukon Rly. Co.
- 72202, *March 25*.—Authorizing issuance of Licence No. C.T.C. (W.T.) 192 to Messrs. O'Sullivan & Stigsen.
- 72206, *March 28*.—Directing, upon the application of Atlas Lumber Co. Ltd., the fixing of charges upon the same basis and upon the same conditions as the Agreed Charge approved by Order 59787, dated October 18, 1940, with the increases authorized by Order 74080, dated April 8, 1948, for the transportation of lumber and forest products shipped by the Applicant from Rocky Mountain House, Harlech and Spur Mileage 141.75 of the C.N. Rys., Brazeau Subdivision, Alberta.
- 72213, *April 1*.—Approving Supplement 2 to Standard Mileage Freight Tariff C.T.C. No. E.3930 filed by Canadian National Rlys.
- 72214, *April 1*.—Approving Supplement 1 to Standard Mileage Freight Tariff C.T.C. No. E.3929 filed by Canadian National Rlys.
- 72237, *April 5*.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 72239, *April 5*.—Authorizing issuance of Licence No. C.T.C. (W.T.) 193 to Abitibi Navigation Co. Ltd.
- 72243, *April 6*.—Authorizing issuance of Licence No. C.T.C. (W.T.) 194 to McInnes Products Corp. Ltd.
- 72256, *April 8*.—Approving Standard Passenger Tariff C.T.C. No. 2 of British Yukon Navigation Company.
- 72268, *April 12*.—Amending Order No. 71975, regarding issuance of Licence (W.T.) No. C.T.C. 182 to Hudson's Bay Co.
- 72272, *April 14*.—Authorizing issuance of Licence No. C.T.C. (W.T.) 195 to Upper Lakes and St. Lawrence Transportation Company.
- 72281, *April 20*.—Approving Standard Freight Tariff C.T.C. No. 3 of British Yukon Navigation Co.
- 72282, *April 19*.—Approving Standard Passenger Tariff C.T.C. No. 273 of Canada Steamship Lines Ltd.
- 72283, *April 21*.—Approving Standard Mileage Passenger Tariffs of maximum passenger fares filed by the Railway Association of Canada.
- 72288, *April 21*.—Approving revised pages of Standard Freight Tariff C.T.C. No. F-5 of Hudson Bay Company.
- 72292, *April 22*.—Approving Supplement 4 to Traffic Agreement between the Bell Telephone Company and James MacLaren Co. Ltd.
- 72294, *April 22*.—Approving Supplement 1 to Service Station contract between the Bell Telephone Company and the Norland Independent Telephone Co.
- 72296, *April 22*.—Approving Appendix "A" to Traffic Agreement between the Bell Telephone Company and La Compagnie de Telephone de Charlevoix and Saguenay.
- 72298, *April 28*.—Requiring railway companies to file tariffs giving effect on or before July 1, 1949, to a reduction in rates in the matter of removal of the "Mountain Differential".
- 72299, *April 23*.—Approving Appendix "A" to Traffic Agreement between the Bell Telephone Company and the H. Perry Telephone System.

- 72300, April 23.—Approving Traffic Agreement between the Bell Telephone Company and the Adolphustown Rural Telephone System.
- 72301, April 23.—Approving Supplement 2 to Traffic Agreement between the Bell Telephone Company and La Cie. de Telephone de La Tuque Falls.
- 72302, April 23.—Approving Supplement 3 to Appendix "A" to Traffic Agreement between the Bell Telephone Company and the Commissioners for the Telephone System of the Municipality of the Township of Moore.
- 72312, April 23.—Approving Standard Freight Tariff C.T.C. No. 6 of McInnes Products Ltd.
- 72323, April 27.—Approving under Maritime Freight Rates Act tolls published in Tariffs filed by Canadian National Rlys. under Section 3.
- 72324, April 27.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian National Rlys. under Section 3.
- 72339, April 30.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian National Rlys. under Section 3.
- 72388, May 13.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Rly. under Sections 3 and 9 and certifying normal tolls for reimbursement purposes.
- 72398, May 12.—Authorizing issuance of Licence No. C.T.C. (W.T.) 196 to Philip D'Aoust.
- 72399, May 12.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72400, May 12.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72401, May 12.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72414, May 16.—Approving Appendix "A" to Traffic Agreement between Bell Telephone Company and La Compagnie de Telephone de Kamouraska.
- 72415, May 16.—Approving Supplement 2 to Traffic Agreement between Bell Telephone Company and the Rupert and North Wakefield Telephone Co. Ltd.
- 72416, May 16.—Approving Supplement 2 to Traffic Agreement between Bell Telephone Company and the Kaladar and Northern Telephone Co. Ltd.
- 72418, May 16.—Approving Appendix "A" to Traffic Agreement between Bell Telephone Company and the Princeton and Drumbo Telephone Co.
- 72419, May 16.—Approving 1st revised page 18-B to tariff C.T.C. No. 5 of the Yellowknife Transportation Co. Ltd.
- 72424, May 17.—Approving Supplement No. 3 to Northern Freight Classification No. 7, British Yukon Railway C.T.C. No. 45.
- 72443, May 20.—Approving Traffic Agreement between Bell Telephone Company and the Tuckersmith Municipal Telephone System.
- 72462, May 25.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 72465, May 26.—Approving revised pages of Standard Freight Tariff C.T.C. No. 2 of Northern Transportation Co.
- 72466, May 25.—Approving under Maritime Freight Rates Act tolls published in tariff filed by Dominion Atlantic Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72467, May 26.—Approving under Maritime Freight Rates Act tolls published in tariff filed by Dominion Atlantic Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72476, May 27.—Approving under Maritime Freight Rates Act tolls published in tariff filed by Dominion Atlantic Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72477, May 27.—Approving under Maritime Freight Rates Act tolls published in tariff filed by Dominion Atlantic Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72483, May 27.—Directing upon the application of the McColl-Frontenac Oil Co. Ltd., the fixing of charges upon the same basis and upon the same conditions as the Agreed Charge approved by Order No. 59714, dated October 2, 1940, as amended by Order No. 71599, dated November 30, 1948, for the transport of petroleum products from the marine terminal of the McColl-Frontenac Oil Company, Ltd., at Rimouski, Quebec, to railway stations and/or destinations in the Province of Quebec.
- 72484, May 30.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 72485, May 30.—Approving Supplement 3 to Traffic Agreement between Bell Telephone Company and La Compagnie de Telephone Rural d'Enryville.
- 72486, May 30.—Approving Supplement 2 to Traffic Agreement between Bell Telephone Company and La Compagnie de Telephone de St. Ephrem de Bagot.
- 72487, May 30.—Approving Supplement 2 to Traffic Agreement between Bell Telephone Company and The Balderson Telephone Co. Ltd.

- 72490, May 30.—Approving Appendix "A" to Traffic Agreement between Bell Telephone Company and La Corporation de Telephone de Quebec.
- 72491, May 30.—Approving Supplement 4 to Traffic Agreement between Bell Telephone Company and La Corporation de Telephone de Quebec.
- 72494, May 31.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72499, June 1.—Approving Standard Freight Mileage Tariffs C.T.C. No. W.2035 and C.T.C. No. E.3961 of the Canadian National Railways.
- 72509, June 2.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72510, June 2.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72511, June 2.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Freight Association under Sec. 9 and certifying normal rolls for reimbursement purposes.
- 72512, June 2.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72513, June 2.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72515, June 2.—Authorizing issuance of Licence No. C.T.C. (W.T.) 198 to Georgian Bay Tourist and Steamships Ltd.
- 72526, June 3.—Approving Appendix "A" to Traffic Agreement between Bell Telephone Co. and South Plantagenet Rural Telephone Co.
- 72529, June 4.—Approving Appendix "A" to Traffic Agreement between Bell Telephone Co. and Le Telephone Labelle Ltee.
- 72531, June 3.—Authorizing issuance of Licence No. C.T.C. (W.T.) 197 to Yellowknife Transportation Co. Ltd.
- 72532, June 7.—Approving Appendix "A" to Traffic Agreement between Bell Telephone Co. and La Corporation de Telephone de Quebec.
- 72537, June 8.—Amending Order No. 72180 regarding tariffs filed by Dominion Atlantic Rly. under Maritime Freight Rates Act.
- 72540, June 8.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 72541, June 8.—Directing, upon the application of Trinidad Leaseholds (Canada) Ltd., the fixing of charges upon the same basis and upon the same conditions as the Agreed Charge approved by Order No. 59568, dated August 29, 1940, with the increases authorized by Order No. 70480, dated April 8, 1948, for the transport of petroleum products from Whitby, Ont. to the stations and/or places referred to in the said Agreed Charge.
- 72547, June 8.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72556, June 13.—Approving Standard Mileage Freight Tariffs filed by Canadian Pacific, Esquimalt & Nanaimo and Vancouver & Lulu Island Railway Companies.
- 72569, June 15.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Rly. under Sec. 9, and certifying normal tolls for reimbursement purposes.
- 72577, June 15.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Rly. under Sec. 9, and certifying normal tolls for reimbursement purposes.
- 72588, June 20.—Approving Standard Freight Distance Tariff C.T.C. No. 2376 filed by the Great Northern Railway.
- 72601, June 18.—Approving 2nd Revised Page 20 of Standard Tariff C.T.C. No. 5 of the Yellowknife Transportation Co. Ltd.
- 72605, June 21.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under section 3.
- 72609, June 21.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Freight Ass'n. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72612, June 22.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Freight Ass'n. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72614, June 22.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Freight Ass'n. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72615, June 22.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Freight Ass'n. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72631, June 25.—Approving Traffic Agreement between Bell Telephone Company and Telephone System of Township of Erin.
- 72632, June 25.—Approving Appendix "A" to Traffic Agreement between Bell Telephone Company and La Compagnie de St. Denis sur Richelieu.

- 72635, *June 24*.—Approving Supplement 4 to Traffic Agreement between Bell Telephone Company and The Glengarry Telephone Co. Ltd.
- 72636, *June 25*.—Approving Appendix "A" to Traffic Agreement between Bell Telephone Company and West Garafoaxa Telephone Co-operative Ass'n. Ltd.
- 72644, *June 27*.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Section 9 and certifying normal tolls for reimbursement purposes.
- 72649, *June 29*.—Extending until August 1, 1949, the time within which the Great Northern Railway may file tariffs giving effect to reduction in rates with respect to the "Mountain Differential".
- 72665, *June 30*.—Approving Supplement 27 to Bell Telephone Company's tariff C.T.C. No. 6668 and first reference lists (C.T.C. No. 6652).
- 72668, *July 4*.—Directing, upon the application of Nellie Galay the fixing of charges upon the same basis and the same conditions as the Agreed Charge approved by Order No. 60373, dated February 26, 1941, with the increases authorized by Order No. 70480, dated April 8, 1948, for the transport of eggs from Pine River, Man., to Winnipeg, Man.
- 72680, *July 4*.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 72695, *July 7*.—Approving Supplement No. 19 (as amended) to Canadian Freight Classification, C.T.C. No. 983.
- 72702, *July 8*.—Approving Supplement 1 to Service Station Contract between Bell Telephone Company and The Farmers' Telephone Company of Durham, Ltd.
- 72704, *July 8*.—Approving revised sheets of tariffs C.T.C. Nos. 27 and 28 of the British Columbia Telephone Co. as listed in filing advice No. 193, dated June 30, 1949.
- 72715, *July 12*.—Approving Appendix "A" to Traffic Agreement between Bell Telephone Company and the Guest Telephone Co.
- 72724, *July 13*.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Freight Ass'n. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72730, *July 12*.—Authorizing the Superintendent of the Quebec Railway, Light & Power Company to prepare and issue tariffs of tolls.
- 72740, *July 15*.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Freight Ass'n. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72741, *July 14*.—Approving Supplement 2 to Traffic Agreement between Bell Telephone Co. and The Stormont Telephone System.
- 72742, *July 14*.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Freight Ass'n. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72744, *July 15*.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Freight Ass'n. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72746, *July 15*.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Freight Ass'n. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72747, *July 15*.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Freight Ass'n. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72749, *July 18*.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 72750, *July 18*.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Freight Ass'n. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72751, *July 18*.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Freight Ass'n. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72752, *July 18*.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Freight Ass'n. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72753, *July 18*.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Freight Ass'n. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72754, *July 18*.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Freight Ass'n. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72759, *July 18*.—Approving memorandum of Agreement between the Bell Telephone Co. and Armand C. Crepeau.
- 72764, *July 18*.—Approving Supplement 2 to Traffic Agreement between Bell Telephone Company and La Corporation de Telephone de Joliette.
- 72769, *July 18*.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Freight Ass'n. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72770, *July 18*.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Freight Ass'n. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72771, *July 19*.—Extending until Sept. 1, 1949, the time within which the C.N.R., C.P.R. and Great Northern Rly. may file tariffs giving effect to the reduction in rates in removal of the "Mountain Differential".

- 72772, *July 20.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Canadian Freight Ass'n. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72778, *July 19.*—Directing, upon the application of the British American Oil Company the fixing of an Agreed Charge between certain Railway Companies and the British American Oil Co. Ltd. for the transport of petroleum products shipped from B.A. Marine Terminal at Chicoutimi, Que., to points in Quebec Province.
- 72779, *July 19.*—Directing, upon the application of the Shell Oil Company the fixing of an Agreed Charge between certain Railway Companies and the Shell Oil Company for the transport of petroleum products from the Shell Oil Marine Terminal at Rimouski, Que., to points in Quebec Province.
- 72808, *July 25.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72809, *July 25.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72810, *July 22.*—Approving Appendix "A" to Traffic Agreement between Bell Telephone Company and The Wright & Pontiac Telephone Company (incorporated).
- 72824, *July 26.*—Approving Agreement between Bell Telephone Company and the Canadian Marconi Company.
- 72831, *July 28.*—Approving under Maritime Freight Rates Act tolls published in tariff filed by Dominion Atlantic Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72832, *Aug. 2.*—Approving under Maritime Freight Rates Act tolls published in tariff filed by Dominion Atlantic Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72835, *Aug. 2.*—Approving under Maritime Freight Rates Act tolls published in tariff filed by Dominion Atlantic Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72838, *Aug. 2.*—Approving under Maritime Freight Rates Act tolls published in tariff filed by Temiscouata Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72845, *Aug. 2.*—Authorizing issuance of Licence No. C.T.C. (W.T.) 199 to Donald Frederick Sheck, of Yellowknife, N.W.T.
- 72858, *Aug. 3.*—Approving Appendix "A" to Traffic Agreement between Bell Telephone Co. and La Corporation de Telephone de Quebec.
- 72882, *Aug. 5.*—Directing, upon the application of The Imperial Lumber Co. Ltd. the fixing of charges upon the same basis and the same conditions as the Agreed Charge approved by Order No. 59787, dated October 18, 1940, with the increases authorized by Order No. 70180, dated April 8, 1948, for the transport of lumber and forest products from Mileage 16 Edson Subdivision of the C.N. Rlys. to the stations referred to in the said Agreed Charge.
- 72887, *Aug. 10.*—Approving Appendix "A" to Traffic Agreement between Bell Telephone Co. and Long Lac Telephone, Ltd.
- 72894, *Aug. 10.*—Approving Supplement 3 to Traffic Agreement between Bell Telephone Co. and Noisy River Telephone Company, Limited.
- 72895, *Aug. 10.*—Approving under Maritime Freight Rates Act tolls published in tariff filed by Dominion Atlantic Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72900, *Aug. 11.*—Approving under Maritime Freight Rates Act tolls published in tariff filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72901, *Aug. 11.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72908, *Aug. 12.*—Approving Standard Freight Tariff C.T.C. No. 1 filed by O'Sullivan and Stigsen.
- 72909, *Aug. 12.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72912, *Aug. 15.*—Setting out the requirements for computing mileage distances by licensed water carriers on the Yukon River and its tributary waters within the Yukon Territory.
- 72947, *Aug. 19.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 72956, *Aug. 19.*—Approving Agreed Charge between the Imperial Oil Ltd. and McColl-Frontena Oil Co. Ltd., and rail carriers on petroleum products from Calgary, Alta., and Valesso, Alta. to points on the Northern Alberta Railways.
- 72962, *Aug. 23.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Railway under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72963, *Aug. 23.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Railway under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72964, *Aug. 22.*—Approving under Maritime Freight Rates Act tolls published in tariff filed by Canadian Freight Ass'n. under Sections 3 and 9.

- 72973, Aug. 23.—Approving under Maritime Freight Rates Act tolls published in tariff filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72986, Aug. 25.—Approving under Maritime Freight Rates Act tolls published in tariff filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 72989, Aug. 25.—Approving Agreed Charge between rail carriers and Dominion Salt Co. Ltd., on Salt from Sarnia, Ont., to Beauharnois, Que., via C.N.R., C.P.R., Chesapeake & Ohio Rly. and N.Y.C. R.R.
- 72993, Aug. 26.—Approving original and revised sheets to tariff C.T.C. No. 6652 and supplement 30 thereto, also revised sheets to tariff C.T.C. No. 6668 of the Bell Telephone Company.
- 73002, Aug. 31.—Approving Appendix "A" to Traffic Agreement between Bell Telephone Co. and La Compagnie de Telephone de Kamouraska.
- 73003, Aug. 31.—Approving Traffic Agreement between Bell Telephone Company and The Hopetown Telephone Co. Ltd.
- 73004, Aug. 31.—Approving Appendix "A" to Traffic Agreement between Bell Telephone Company and La Compagnie de Telephone d'Yamaska, Ltd.
- 73005, Aug. 31.—Approving Appendix "A" to Traffic Agreement between Bell Telephone Company and La Compagnie de Telephone de St. Germain de Grantham.
- 73006, Aug. 31.—Approving Appendix "A" to Traffic Agreement between Bell Telephone Company and Sharbot Lake & Parham Telephone System.
- 73007, Aug. 31.—Approving Appendix "A" to Traffic Agreement between Bell Telephone Company and La Compagnie de Charlevoix and Saguenay.
- 73008, Aug. 31.—Approving revised sheets of Tariff C.T.C. No. 31 of the British Columbia Telephone Company.
- 73036, Sept. 7.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 73057, September 9.—Approving Standard Freight Tariff C.T.C. No. 1 filed by Phil D'Aoust of Fort Resolution, N.W.T.
- 73071, September 14.—Approving proposed tariff provision of Canadian Freight Ass'n. (Western Lines) for acceptance and carriage of uncleaned sweet clover seed.
- 73083, September 14.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Railway under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73088, September 16.—Directing, upon the application of Chas. I. Edwards Estate the fixing of charges upon the same basis and the same conditions as the Agreed Charge approved by Order 59787, dated October 18, 1940, with the increases authorized by Order 70480, dated April 8, 1948, for the transport of lumber and forest products from Rocky Mountain House, Horburg and Phoenix, Alberta, to the stations referred to in the said Agreed Charge.
- 73090, September 17.—Approving Supplement 3 to Traffic Agreement between Bell Telephone Co. and Ontario Department of Lands and Forests (Batchawana Line).
- 73091, September 17.—Approving Supplement 2 to Traffic Agreement between Bell Telephone Co. and La Compagnie de Telephone d'Yamaska, Ltd.
- 73101, September 20.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 73110, September 20.—Approving under Maritime Freight Rates Act tolls published in tariff filed by Dominion Atlantic Rly. and certifying normal tolls for reimbursement purposes.
- 73119, September 22.—Approving Supplement 2 to Traffic Agreement between Bell Telephone Co. and Commissioners for Telephone System of the Township of London.
- 73120, September 22.—Approving under Maritime Freight Rates Act tolls published in tariff filed by C.P.R. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73121, September 22.—Approving Supplement 3 to Traffic Agreement between Bell Telephone Company and Dunfield Electric.
- 73122, September 22.—Approving Traffic Agreement between Bell Telephone Company and Cumberland Telephone System.
- 73123, September 24.—Authorizing railways to publish and file tariff schedules providing for a general eight per cent increase in freight rates, subject to an exception on coal and coke where eight cents a ton is authorized.
- 73123, September 23.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Dominion Atlantic Railway under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73136, September 26.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 73137, September 26.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.

- 73138, *September 23.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 73145, *September 28.*—Approving Standard Freight Tariffs of maximum mileage tolls filed under the provisions of Order No. 73123, dated September 24, 1949.
- 73147, *September 27.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 73150, *September 28.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 73153, *September 30.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 73154, *September 30.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 73155, *September 30.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 73156, *September 30.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 73158, *September 30.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 73174, *October 3.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 73175, *October 3.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 73178, *October 4.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 73190, *October 6.*—Approving Agreed Charge between the C.N. Rlys and the Shell Oil Company on petroleum products from Gaspe to Chandler, Que.
- 73210, *October 8.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 73220, *October 13.*—Suspending tariffs filed by C.P.R., C.N.R., et al, publishing increased commutation fares.
- 73222, *October 12.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 73226, *October 13.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 73228, *October 13.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 73229, *October 13.*—Approving Traffic Agreement between Bell Telephone Company and Northern Telephone Co. Ltd.
- 73231, *October 14.*—Amending Order 73220 which suspended tariffs of the C.P.R. and C.N.R. showing increases in commutation fares.
- 73237, *October 14.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 73241, *October 17.*—Extending until October 27, 1949, time for obtaining leave to appeal to the Supreme Court of Canada from Judgment of the Board, dated September 20, 1949, re general increase in freight rates.
- 73257, *October 20.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 73259, *October 18.*—Authorizing issuance of Licence No. C.T.C. (W.T.) 200 to Charles Sanders.
- 73270, *October 20.*—Approving Supplement 1 to Service Station Contract between Bell Telephone Company and Le Syndicat de Telephone Rural de Stoke.
- 73273, *October 20.*—Approving Supplement 1 to Service Station Contract between Bell Telephone Company and The Orford Telephone Association.
- 73282, *October 21.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 73306, *October 26.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 73309, *October 27.*—Granting leave to the C.P.R. to appeal to the Supreme Court of Canada from Judgment of the Board concerning freight rates increase.
- 73320, *October 28.*—Approving Supplement 3 to Traffic Agreement between Bell Telephone Co. and Corporation of the Township of Tuckersmith (operating the Tuckersmith Municipal Telephone System).
- 73321, *October 28.*—Approving Service Station Contract between Bell Telephone Co. and Danford Lake Telephone System.

- 73322, October 28.—Approving Appendix "A" to Traffic Agreement between Bell Telephone Co. and Le Telephone Harricana et Gatineau Limitee.
- 73323, October 28.—Approving Appendix "A" to Traffic Agreement between Bell Telephone Co. and La Corporation de Telephone de Quebec.
- 73325, October 28.—Approving Appendix "A" to Traffic Agreement between Bell Telephone Co. and North Wakefield Telephone Co. Ltd.
- 73326, October 28.—Approving Appendix "A" to Traffic Agreement between Bell Telephone Co. and Falkirk Telephone System.
- 73342, November 1.—Approving By-law of Cornwall-International Bridge Co., authorizing the President to prepare and issue tariff of tolls.
- 73350, November 2.—Extending until February 15, 1950, the time for filing of answers to the application of Bell Telephone Company for an increase in rates.
- 73354, November 2.—Approving Memorandum of Basis of Settlement for Long Distance messages between British Columbia Telephone Co. and North-West Telephone Co.
- 73355, November 2.—Approving Supplement 5 to Traffic Agreement between Bell Telephone Co. and The Sioux Lookout Telephone Co. Ltd.
- 73359, November 3.—Approving Appendix "A" and Supplement 4 to Traffic Agreement between Bell Telephone Co. and Blanshard Municipal Telephone System.
- 73376, November 4.—Approving under Maritime Freight Rates Act tolls published in tariff filed by Temiscouata Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73383, November 7.—Approving under Maritime Freight Rates Act tolls published in tariff filed by Temiscouata Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73393, November 7.—Approving under Maritime Freight Rates Act tolls published in tariff filed by Temiscouata Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73394, November 7.—Approving under Maritime Freight Rates Act tolls published in tariff filed by Temiscouata Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73399, November 8.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 73402, November 10.—Approving Supplement 1 to Quebec Railway, Light & Power Company's Standard Passenger Tariff C.T.C. No. 68.
- 73406, November 9.—Continuing approval of Agreed Charge tariff C.T.C. (AC) No. 36, subject to modifications set out in Supplement 5.
- 73407, November 9.—Continuing approval of Agreed Charge tariff C.T.C. (AC) No. 37 subject to modifications set out in Supplement 3.
- 73427, November 14.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Temiscouata Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73441, November 16.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Temiscouata Rly. under Sec. 9 and certifying normal rolls for reimbursement purposes.
- 73448, November 17.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Cumberland Railway & Coal Co. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73449, November 17.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Cumberland Railway & Coal Co. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73457, November 18.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Cumberland Railway & Coal Co. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73458, November 18.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Cumberland Railway & Coal Co. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73459, November 18.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Cumberland Railway & Coal Co. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73460, November 18.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Cumberland Railway & Coal Co. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73461, November 17.—Approving Standard Tariff C.T.C. No. 183 of the Quebec Railway, Light & Power Co.
- 73463, November 18.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Cumberland Rly & Coal Co. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73471, November 21.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.

- 73474, *November 19.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Sydney & Louisburg Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73477, *November 19.*—Approving Agreement between Bell Telephone Co. and Pacific Telephone & Telegraph Co.
- 73478, *November 21.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Sydney & Louisburg Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73481, *November 21.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Sydney & Louisburg Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73486, *November 22.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Sydney & Louisburg Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73487, *November 22.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Sydney & Louisburg Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73507, *November 24.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Sydney & Louisburg Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73508, *November 24.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Sydney & Louisburg Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73509, *November 24.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Sydney & Louisburg Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73510, *November 24.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Sydney & Louisburg Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73511, *November 24.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Sydney & Louisburg Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73512, *November 24.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Sydney & Louisburg Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73513, *November 24.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Sydney & Louisburg Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73517, *November 25.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Sydney & Louisburg Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73518, *November 25.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Sydney & Louisburg Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73519, *November 25.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Sydney & Louisburg Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73520, *November 25.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Sydney & Louisburg Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73521, *November 25.*—Approving under Maritime Freight Rates Act tolls published in tariffs filed by Sydney & Louisburg Rly. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73526, *November 25.*—Approving Agreed Charge on Soda Ash, carloads, shipped by the Aluminum Company of Canada from Amherstburg, Ont. to Arvida, Que.
- 73549, *November 30.*—Approving under Maritime Freight Rates Act tolls published in tariff filed by the Maritime Coal, Railway & Power Co. under Sec. 9 and certifying normal tolls for reimbursement purposes.
- 73568, *December 1.*—Approving Appendix "A" to Traffic Agreement between Bell Telephone Co. and Northern Telephone Co.
- 73570, *December 1.*—Approving Supplement 3 to Traffic Agreement between Bell Telephone Co. and La Compagnie de Telephone de St. Charles de Richelieu.

- 73571, December 1.—Approving Supplement 1 to Service Station Contract between Bell Telephone Co. and La Corporation de La Paroisse de St. Joachim.
- 73572, December 1.—Approving Appendix "A" to Traffic Agreement between Bell Telephone Co. and La Corporation de Telephone de Quebec.
- 73602, December 7.—Approving under Maritime Freight Rates Act tolls published in tariffs filed by C.N.R. under Sec. 3.
- 73625, December 13.—Approving Supplement No. 1 to Service Station Contract between Bell Telephone Company and The Penhurst Telephone Co. Ltd.
- 73629, December 13.—Approving Appendix "A" and Supplement No. 2 to Traffic Agreement between Bell Telephone Company and C.P.R. (Sudbury Little Current Line).
- 73633, December 14.—Approving Memorandum of Agreement between Bell Telephone Company and The Northern Forest Products, Ltd.
- 73640, December 17.—Approving under Maritime Freight Rates Act tolls published in tariff filed by Dominion Atlantic Rly. under Sections 3 and 9 and certifying normal tolls for reimbursement purposes.
- 73645, December 7.—Approving Supplement 10 to Agreed Charge Tariff C.T.C. (AC) No. 11.
- 73649, December 16.—Approving amendment to Agreed Charge Tariff C.T.C. (AC) No. 25.
- 73654, December 19.—Approving Appendix "A" to Traffic Agreement between Bell Telephone Co. and La Compagnie de Telephone de Charlevoix et Saguenay.
- 73655, December 19.—Approving Appendix "A" to Traffic Agreement between the Bell Telephone Company and Le Telephone Guevremont.
- 73689, December 23.—Approving amendment to Agreed Charge Tariff C.T.C. (AC) No. 34.
- 73693, December 27.—Approving amendment to Agreed Charge Tariff C.T.C. (AC) No. 10.
- 73694, December 27.—Approving amendment to Agreed Charge Tariff C.T.C. (AC) No. 7.
- 73695, December 27.—Approving amendment to Agreed Charge Tariff C.T.C. (AC) No. 8.
- 73696, December 27.—Approving amendment to Agreed Charge Tariff C.T.C. (AC) No. 19.
- 73697, December 27.—Approving amendment to Agreed Charge Tariff C.T.C. (AC) No. 12.
- 73698, December 27.—Approving amendment to Agreed Charge Tariff C.T.C. (AC) No. 32.
- 73708, December 29.—Approving amendment to Agreed Charge Tariff C.T.C. (AC) No. 17.
- 73715, December 29.—Approving Standard Mileage Freight Tariff C.T.C. No. 203 filed by Canada Steamship Lines.
- 73722, December 29.—Approving Standard Mileage Freight Tariff C.T.C. No. 38 filed by Northwest Steamships Ltd.
- 73724, December 30.—Directing, upon the application of Lebacken Planing Mills, the fixing of charges upon the same basis and the same conditions as the Agreed Charge approved by Order 59787, dated October 18, 1949, with the increases authorized by Order 70180, dated April 8, 1948, for the transport of lumber and forest products from High Prairie, Alta., to the stations referred to in the said Agreed Charge.

A. S. KIRK,

Director.

OTTAWA, February 1, 1950.

APPENDIX "D"

January 30, 1950.

THE SECRETARY,
BOARD OF TRANSPORT COMMISSIONERS FOR CANADA,
OTTAWA, CANADA.

DEAR SIR,

I submit herewith my Annual Report and information regarding the work of the Engineering Branch of the Board during the past year, and attach herewith details and summarized statement of works of the Engineering Department during the year 1949.

Yours very truly,

E. K. HALL,
Acting Director of Engineering.

INTERLOCKING PLANTS, AND CHANGES TO PLANTS AND SIGNALS

Recommendations were made in connection with changes to 23 interlocking plants, and 16 interlocking plants were inspected in connection with Operating Orders.

When applications are made by the railways for approval of plans, covering the installation of, and changes to, signals and interlocked switches at diamond crossings, bridges, or junctions, a thorough check of track and signal plant is made to ensure that the plant is designed to provide full protection for all train movements through the interlocking, with signals and switches so arranged and interlocked mechanically, electrically, or both, to prevent trains from receiving conflicting indications.

Before the plants were placed in service, the Board's Engineer made a check in the field in all cases to ensure that circuits were installed in accordance with approved plan, and that the signals and switches functioned as intended. Recommendation was made to the Board in all cases in connection with the necessary Operating Order before the plants were put in operation.

PROTECTION AT HIGHWAY CROSSINGS BY WIG-WAGS AND BELLS, FLASHING LIGHT SIGNALS AND BELLS, AND ELECTRIC GATES

During the year there were 85 installations of automatic protection at railway crossings, in addition to some 15 cases of circuit improvement in connection with existing protective devices.

Applications for automatic protection at railway highway level crossings are made by Municipal and Provincial Highway Authorities, sometimes by the Railways. Other cases are brought to the Board's attention by the officers of the Board. All applications do not result in installation of the protection applied for, but in the majority of cases all applications entail an inspection by an Engineer of the Board and his report for the Board's decision.

In the case of all installations the Board's Engineers made inspections and conducted a thorough test to ascertain if the installation had been made in accordance with the approved practice and plans, and if the protection was working in a satisfactory manner. An audit of all costs of protection installed was made by an Engineer of the Board. This involved the checking of all items of labour, material, as well as the original invoices. Recommendation was then made in connection with payment from the Railway Grade Crossing Fund, or special fund.

There were many inspections made during the year in connection with applications for highway crossing protection which did not result in installation, since as a result of the inspection it was found that conditions did not warrant the protection applied for.

HIGHWAY CROSSINGS OPENED, CLOSED, AND HIGHWAY DIVERSIONS

There were 221 new highway crossings opened during the year and 58 closed, together with 13 highway diversions. The highway crossings opened involved cases where the railway companies wished to extend their tracks across the existing public ways, and where Municipal and Highway Authorities desired to cross existing tracks by new, or diverted, highways.

Plans and profiles of the proposed crossings were carefully examined by Engineers of the Board, in order to endeavour to eliminate any objectionable features, such as obstruction to view, grades of approach, etc., and to bring about the safest possible travel conditions. A great many of the cases applied for required an examination on the ground, and recommendations were made following the inspections. Inspections were made in connection with highway diversions to eliminate wherever possible existing railway crossings.

BRIDGES

During the year there were 51 bridges and subways approved for construction and reconstruction. The use of heavier motive power has made it necessary to carry out various works capable of safely carrying the heavier rolling stock at speeds greatly in excess of those in existence some years ago. This involves strengthening and reconstruction of bridges and culverts. The plans in connection with these structures were all submitted and were examined by an Engineer of the Board, and recommendation was made to the Board in connection therewith. After the structures were completed, examinations were made in all cases by an Engineer of the Board to ascertain if the structures were built according to the approved plan and safe for the carriage of traffic.

In addition to the above, inspections were made of 503 bridges for safety of operation and recommendations made for an Order of the Board authorizing the railway companies to operate over them.

OPERATION OF BRANCH LINES AND INDUSTRIAL SPURS

The Engineering Department examined applications and plans in connection with operation over industrial spurs, and recommendations were made for 45 approving Orders.

MAINTENANCE OF TRACK AND STRUCTURES

One of the important duties of the Engineering Department of the Board is the inspection of track conditions to ensure safety of travel over approximately 57,000 miles of railway trackage in Canada under the Board's jurisdiction. The Board's engineers throughout the year travelled over and inspected all the Main Lines of railway and a considerable mileage of branch lines, to ensure the safety of track for public travel. Particularly close and intensive examination was made of any Subdivision where any accident took place to ensure that standard practice and standard precautions had been taken, and the trackage was being properly maintained.

TUNNELS, WATER, GAS, SEWER PIPES, UNDERGROUND MINE WORKINGS

In addition to the inspections enumerated above, plans were examined in connection with applications for water, gas and sewer pipes passing under the railways. In a number of cases these involved an inspection in the field. Plans

and specifications were also examined in connection with applications for mining tunnels, and were recommended for approval when in accordance with safe practice.

A number of applications were received in connection with underground workings closely approaching the railway right-of-way, and examinations and recommendations were made to ensure every safety precaution for the Board's consideration in issuing Order.

RAILWAY GRADE CROSSING FUND, AND SPECIAL VOTES

In accordance with the provisions of sub-section (5) of Section 262 of the Railway Act, 1909, provision was made that the sum of \$200,000 each year, for ten consecutive years from the first day of April, 1909, be appropriated and set apart from the consolidated revenue fund for the purpose of aiding actual construction work for the protection, safety, and convenience of the public in respect of highway crossings of railways at rail level, in existence on the first day of April, 1909, the said sums to be placed to the credit of a special account to be known as "The Railway Grade Crossing Fund", to be applied by the Board, subject to certain limitations set out in the Act, and amending Acts, solely towards the cost (not including that of maintenance and operation), of actual construction work for the purpose specified. In 1919, the same sum was voted for another ten years and again in 1929.

In 1947 the sum of \$200,000 a year was voted for a period of ten years, and increased to \$500,000 a year in 1948 for nine years.

An amount of \$500,000 was transferred to the Railway Grade Crossing Fund from the Unemployment Relief Fund, 1930, and \$500,000 from the Unemployment and Farm Relief Fund, 1931-1932; \$500,000 by special vote of Parliament in 1934. In 1938, \$300,000 was placed in the Railway Grade Crossing Fund in addition to the usual \$200,000 and \$500,000 was placed in the Railway Grade Crossing Fund by special vote in 1939; \$1,000,000 by the Public Works Construction Act, 1935; \$1,000,000 by Vote 420, Special Supplementary Estimates, 1936-37; Vote 357, Special Supplementary Estimates, 1937-38, \$1,064,000; Vote 630, Supplementary Estimates 1938-39, provided \$1,000,000; and Vote 585, Supplementary Estimates 1939-40, provided \$1,000,000, making the total provided to the end of the year 1949 of \$14,564,000. Out of these funds the sum of \$12,098,581.06 has already been paid.

The funds voted to the Railway Grade Crossing Fund are accumulative, whereas the money provided by the Special Votes had to be committed to projects by the end of the current fiscal year, when the vote elapsed, and funds not already committed were no longer available.

Expenditures from the Railway Grade Crossing Fund were low during the War years due to labour and material being directed to War purposes, and recommendations were only made for protection at highway crossings when absolutely necessary at the time.

In 1928, the Railway Act was amended by Chapter 43, 18-19 George V, and provision was made that in the case of any one crossing the total amount of money to be applied by the Board out of the Railway Grade Crossing Fund, in providing protection, safety and convenience for the public, shall not exceed 40 per cent of the cost of the actual construction work, and in no case shall the contribution exceed \$100,000. Under the terms of the Public Works Construction Act, 1935, Vote 420 of the Special Supplementary Estimates, 1936-37; Vote 357 of the Special Supplementary Estimates 1937-38; Vote 630 Supplementary Estimates, 1938-39; and Vote 585 Supplementary Estimates, 1939-40; grants could be made up to 100 per cent of the cost of construction out of the funds

provided under those Acts. Following statements show the distribution of funds provided for the protection of highways crossing railways from 1909, when the first grant was made, to December 31, 1949.

The Engineering Department wishes to express its appreciation of the co-operation extended to it at all times during the past year by officials and engineers of the Provincial Highways Departments, Municipalities and Railways.

STATEMENT SHOWING TOTAL AMOUNT PAID FOR WORK DONE IN THE DIFFERENT PROVINCES OUT OF THE RAILWAY GRADE CROSSING FUND AND SPECIAL VOTES—PERCENTAGE OF TOTAL EXPENDITURE IN EACH PROVINCE, AND PERCENTAGE OF POPULATION OF CANADA IN EACH PROVINCE, 1909 TO DECEMBER 31, 1949.

Province	Total expenditure from the different Votes	Percentage of total amount of expenditure	Population of Province	Percentage of population of Canada
	\$ c.			
British Columbia.....	805,211 66	6.65	1,082,000	8.41
Alberta.....	397,903 11	3.29	846,000	6.58
Saskatchewan.....	664,998 15	5.50	854,000	6.64
Manitoba.....	356,679 89	2.95	757,000	5.89
Ontario.....	6,003,393 07	49.62	4,297,000	33.42
Quebec.....	2,796,617 39	23.11	3,792,000	29.49
New Brunswick.....	313,267 33	2.59	503,000	3.91
Nova Scotia.....	738,116 26	6.10	635,000	4.94
Prince Edward Island.....	22,760 62	.19	93,000	.72
Newfoundland.....				
Total.....	12,098,947 48	100.00	12,859,000	100.00

ENGINEERING DEPARTMENT
JANUARY 5, 1950.

EXPENDITURES FOR PROTECTION AT HIGHWAY CROSSING

1909 TO DECEMBER 31, 1949

Province	Grade Crossing Fund	Percentage of Total		Municipalities		Percentage of Total		Railway		Percentage of Total		Total	
		\$	c.	\$	c.			\$	c.			\$	c.
British Columbia.....	805,211 66			792,880 05		39-89		420,530 12		20-83		2,018,621 83	
Alberta.....	397,903 11			420,734 67		32-43		408,343 26		33-28		1,226,981 04	
Saskatchewan.....	664,998 15			819,404 79		36-37		343,795 11		18-81		1,828,198 05	
Manitoba.....	356,679 89			209,946 94		43-78		248,147 20		30-45		814,774 03	
Ontario.....	6,003,393 07			9,425,088 20		20-55		13,788,763 37		47-19		29,217,244 64	
Quebec.....	2,796,617 39			3,418,205 77		38-90		974,209 94		13-55		7,189,033 10	
New Brunswick.....	313,267 33			215,829 43		44-61		173,161 90		24-66		702,258 66	
Nova Scotia.....	738,116 26			604,980 15		45-78		269,023 67		16-69		1,612,120 08	
Prince Edward Island.....	22,760 62			12,822 98		60-08		2,300 94		6-07		37,884 54	
Newfoundland.....													
Total.....	12,098,947 48			15,919,892 98		27-10		16,628,275 51		37-24		44,647,115 97	

The above figures include payments from the Railway Grade Crossing Fund and all other Votes for highway crossing protection.

ENGINEERING DEPARTMENT

JANUARY 5, 1950.

Protection	Location	Railway	Per Cent	Contributions
Three fixed lights on each of six gates.	Fourth Street West, Calgary, Alta.	C.P.R.	40	1,080 00
Two flashing light signals and one bell.	Crossing at Wheatley, Ont. mileage 46.0 St. Thomas and Walker ville Sub.	C. & O. Ry.	40	2,000 00
Two flashing light signals, bell and automatic gates.	Highway No. 39, east of Section 36, Township 12, Range 20, W 2 M. near Corinne, Sask. mile 42.23 Portal Sub.	C.P.R.	40	4,600 00
Two flashing light signals and bell.	Highway No. 3, in Lot 12, Con. 3, Camboro Township, Ont. Mileage 40.47 Dunnville Sub.	C.N.R.	40	600 00
Establish sight lines.	Crossing in Sec. 28, Twp. 23, Range 8, W 2 M. near Fenwood, Sask.	C.N.R.	40	120 00
Two flashing light signals and one bell.	Mile 13.19 Touchwood Sub.	B.C. Elect.	40	3,760 00
Two flashing light signals and one bell.	Two flashing light signals and bell at 12th Ave. Crossing, Vancouver, B.C.	Ry. Napierville Jct. Ry.	40	2,425 00
Two flashing light signals and one bell.	Highway No. 52, first crossing south of Lacolle, Que.	C.P.R.	40	2,200 00
Two flashing light signals and one bell.	Lochiel Street, Renfrew, Ont. Mile 59.23 Chalk River Sub.	C.N.R.	40	540 00
Two flashing light signals and one bell.	Yale Road at Hope, B.C.	C.N.R.	40	100,000 00
Two flashing light signals and one bell.	Provincial Highway from Station 328.00 to 470.50, Mileage 44.78, Yale Subdivision, B.C.	C.N.R.	40	2,400 00
Highway Diversion closing 1 crossing.	Pie IX Boulevard, Montreal, Que.	C.P.R.	40	2,240 00
Two flashing light signals and one bell.	Crossing near Ketepec Station, Saint John County, N.B., Mileage 6.94 Saint John Subdivision	C.N.R.	40	700 00
Two flashing light signals and one bell.	107th Avenue, Edmonton, Alta.	C.P.R.	40	2,850 00
Two flashing light signals and one bell.	Crossing at Fairville, N.B. Mileage 0.79 West St. John Sub.	C.N.R.	40	1,560 00
Subway	First crossing east of Surling, Ont. Mile 17.37 Campbellford Sub.	C.N.R.	40	100,000 00
Subway	Jones Ave., Toronto, Ont.	C.N.R. and C.P.R.	40	100,000 00
Changes in circuits of bells and wigwags.	Dupont Street (Royce Ave.), Toronto, Ont.	C.N.R.	40	1,240 00
Two flashing light signals and bell.	Lacroix Street, Chatham, Ont.	C.N.R.	40	1,040 00
Two flashing light signals and one bell in lieu of existing bell.	St. George Street, Chatham, Ont.	C.N.R.	40	1,440 00
Subway	Crossing near Onslow, N.S. at mileage 2.83 Springhill, Sub.	C.N.R.	40	24,744 16
Two flashing light signals and one bell.	Pembina Highway, Winnipeg, Man.	C.N.R.	40	1,600 00
Two flashing light signals and one bell.	Provincial Highway No. 3A, Twp. of Wainfleet, County of Welland, Ont. Mile 24.63 Cayuga Sub.	C.N.R.	40	2,160 00
Two flashing light signals and one bell.	Highway No. 54 (Blossom Ave.) just east of Cainsville Station, Ont.	C.N.R.	40	57,500 00
Highway Diversion closing 2 crossings.	Divert, Southern Transprovincial Highway in Prov. of British Columbia, open crossing at Mileage 91.9 Boundary Sub. and close crossings at Mileage 91.53 and 92.19.	C.N.R.	40	

CONTRIBUTION FROM RAILWAY GRADE CROSSING FUND (con.)

1949 (con.)

Protection	Location	Railway	Per Cent	Contributions
Two flashing light signals and one bell	Pharmacy Road, 3½ miles west of Station at Agincourt, Ont. Mile 99.47 (Oshawa Sub.)	C.P.R.	40	2,700 00
Two flashing light signals and one bell	Chatham Street, Beahm, Ont.	C. & O. Rly.	40	2,820 00
Two Electric Short Arm Gates	Ontario Street, Cobourg, Ont.	C.N.R. & C.P.R.	40	4,520 00
Two flashing light signals and one bell	Kathleen Street, Sudbury, Ont.	C.N.R.	40	840 00
Two flashing light signals and one bell	Victoria Street, Clinton, Ont.	C.N.R.	40	2,600 00
Two flashing light signals and one bell	Highway No. 53 at Rymal, Ont. Mile 7-12 Hagersville Sub.	C.N.R.	40	1,080 00
Two flashing light signals and one bell	Highway No. 51, Municipality of St. Alexandre, County of Kamouraska, Que. Mile 11-8 Montmagny Sub.	C.N.R.	40	2,880 00
Two flashing light signals and one bell	Pillette Road, at Mileage 106-80 Windsor Subdivision, County of Essex, Ont.	C.N.R. and C.N.R.	40	3,000 00
Two flashing light signals and one bell	Highway No. 20, County of Madawaska, New Brunswick, Mileage 11-74 (Glendyne Sub.)	C.N.R.	40	2,400 00
Two flashing light signals and one bell	Crossing at Mariott Cove, N.S. Mileage 50-35 Chester Sub	C.N.R.	40	1,800 00
Two flashing light signals and one bell in lieu of existing bell and wigwag	Vidal Street, Sarnia, Ont., Mileage 0-41 Point Edward Sub.	C.N.R. & Sydney and	40	1,080 00
Two sets of short arm gates—Manually operated.	Prince Street crossing C.N.R. and Prince Street crossing Sydney and Louisburg R.V., N.S.	Ry.	40	6,400 00
Two flashing light signals and one bell	Route No. 11, Parish of Addington at Flatlands, N.B. Mileage 9-75 Matapedia Sub.	C.N.R.	40	2,400 00
Two flashing light signals and one bell	Route No. 11, Parish of Addington at Flatlands, N.B. Mileage 8-76 Matapedia Sub.	C.N.R.	40	1,900 00
Two flashing light signals and one bell	Crossing at Nappan Station, Mileage 72-27 Springhill Sub., N.S.	C.N.R.	40	2,400 00
Two flashing light signals and one bell	Manitoba Street, Bracebridge, Ont. Mile 9-68 Huntsville Sub.	C.N.R.	40	2,240 00
Two flashing light signals and one bell	Highway No. 66, near Morris—Kirkland Mine. Ont. Mileage 10-8 Kirkland Lake Sub	Nipissing Central Ry.	40	3,120 00
Two flashing light signals and one bell	Highway between S.E. 4 Sec. 4, Twp. 39, Range 27 W.4 M. and the N.E. 4 Sec. 32, Twp. 38, Range 27, W.4 M. Alberta, Mileage 5-64, Leduc Subdivision.	C.P.R.	40	2,000 00
Two flashing light signals and one bell	Queen Street, Town of Bridgetown, N.S. Mileage 44-66 Kentville Sub	D.A. Ry.	40	3,500 00
Two flashing light signals and one bell	Cueph Road, near Campbellville, Ont. Mileage 37-94 (air Sub)	C.P.R.	40	1,680 00
Two flashing light signals and one bell in lieu of bell.	King Street West, Sherbrooke, Que.	C.N.R.	40	1,000 00
Two flashing light signal units and 3 red lights on existing gate arms, Manual Control.	Sudbury-Garson Road, Ont. at Mileage 115-7 Sudbury Sub.	C.N.R.	40	1,520 00
Two flashing light signals and one bell	Highway No. 11, Parish of Dalhousie, County of Restigouche, N.B. Mile 4-45 Dalhousie Sub.	C.N.R.	40	1,700 00

Changes in track circuits of wigwags and bell.	Communication Road, one mile east of Fargo, Ont.	N.Y.C. Rd. (M.C. Rd.)	40	2,520 00
Two flashing light signals and bell.	Route 6, in Municipality of St. Laurent de Matapedia, County of Bonaventure, Que. Mileage 12-95 Matapedia Sub.	C.N.R.	40	2,000 00
Two flashing light signals and bell.	Kernan Ave. between Lots 12 and 13 Twp. of North Grimsby, Ont. Mile 28-32 Grimsby Sub.	C.N.R.	40	2,230 00
Two flashing light signals and one bell.	Interprovincial Road at Mileage 12-38 Matapedia Sub. Mun. of St. Laurent de Matapedia, County of Bonaventure, Que.	C.N.R.	40	2,200 00
Improve sight lines and grade of approaches.	Road between Lots 12 and 13, Township of Wilnot, fourth crossing east of Baden, Ont.	C.N.R.	40	530 00
Two flashing light signals and one bell.	Highway No. 2 at Mileage 100-58 Shogomoc Subdivision, at Andover, County of Victoria, N.B.	C.P.R.	40	2,470 00
Two flashing light signals and one bell.	Highway No. 1 at Mileage 32-07 St. Stephen Sub. St. Stephen, N.B.	C.P.R.	40	2,450 00
Two flashing light signals and one bell.	Highway No. 22 at Mileage 100-39 Shogomoc Sub. Perth, County of Victoria, N.B.	C.P.R.	40	3,380 00
Two flashing light signals and one bell.	First crossing west of Bloomfield, N.B. Mile 61-65 Sussex Sub.	C.N.R.	40	2,160 00
Two flashing light signals and one bell.	Highway No. 12, in Lot 16, Con. 11, Twp. of Medonte, County of Simcoe, Ont. Mile 88-61 MacTier Sub.	C.P.R.	40	2,480 00
Two flashing light signals and one bell.	Highway in Section 19, Twp. 53, Range 6, W.5 M. at Magnolia, Alberta, Mile 61-2 Wabamun Sub.	C.N.R.	40	1,750 00
Three flashing light signals and one bell.	Pilette Road, Windsor, Ont. Mile 104-91 Chatham Sub.	C.N.R.	40	2,400 00
Two flashing light signals and one bell.	Broadway Street—Yorkton, Sask. Mile 26-08 Wynyard Sub.	C.P.R.	40	4,800 00
Two flashing light signals and one bell.	McAdam Road, Village of Finch, Ont. Mile 74-35 Winchester Sub.	C.P.R.	40	7,000 00
Two flashing light signals and one bell.	Crossing at Moulinette, Ont. Mileage 73-73 Cornwall Sub.	C.N.R.	40	2,600 00
Two flashing light signals and one bell.	Route No. 1, first crossing east of Mount Orford, Que. Mile 92-7 Sherbrooke Sub.	C.P.R.	40	4,230 00
Two flashing light signals and one bell.	Crossing at Tupperville, Ont. Mile 35-14 No. 2 Subdivision.	Chesapeake & Ohio Ry.	40	2,650 00
Two flashing light signals and one bell.	Crossing of Side Road in County of Essex, Mile 81-88 Chatham Sub. Ontario.	C.N.R.	40	3,160 00
Two flashing light signals and one bell.	Highway No. 1 in Town of Margot, Que. Mile 86-9 Sherbrooke Sub.	C.P.R.	40	3,852 00
Improve sight lines.	Highway No. 2 crossing N.A. Ry. at Moriaville, Alberta, Mileage 20-1 Edmonton, Sub.	Northern Alta. Ry.s.	40	200 00
Two flashing light signals and one bell.	Centre Street, Town of Campbellford, Ont., Mile 30-21 Campbellford Sub.	C.N.R.	40	1,300 00
Two flashing light signals and one bell.	Nelles Road (Formerly Lake Road Crossing) Mileage 26-8 Grimsby Sub. in Town of North Grimsby, County of Lincoln, Ont.	C.P.R.	40	880 00
Two flashing light signals and one bell.	Wilson Street, Perth, Ont. Mileage 12-4 Belleville Sub.	C.P.R.	40	1,520 00
Two flashing light signals and one bell.	Woodlands Road, north of Woodlands Station, Que. at Mileage 49-59 St. Lawrence and Adirondack Sub.	N.Y.C. Rd.	40	3,000 00
Two flashing light signals and bell in lieu of bell.	Nelles Road (Formerly Lake Road Crossing) Mileage 26-8 Grimsby Sub., Town of North Grimsby, County of Lincoln, Ont.	C.N.R.	40	880 00
Two flashing light signals and one bell.	127th Street, Edmonton, just north of 129th Ave. Alberta.	C.N.R.	40	2,150 00
Two flashing light signals and one bell.	Academy Road between Lockwood and Centennial Streets, Winnipeg, Man.	C.N.R.	40	2,350 00

CONSTRUCT AND RECONSTRUCT BRIDGES AND SUBWAYS

Reconstruct Canadian Pacific Railway bridge at mileage 3·7 Wingham Subdivision, Ontario.

Reconstruct Canadian Pacific Railway bridge over Grand River at Galt, Ontario.

Construct pedestrian subway under the Canadian National Railways at Portage Avenue, Fort Frances, Ontario.

Reconstruct Canadian Pacific Railway bridge over Red Deer River at East Coulee, Alberta.

Reconstruct viaduct and its approaches over Canadian Pacific Railway, Hochelaga Yard, on St. Catherine Street East between Berry and Marlborough Streets, Montreal, Quebec.

Reconstruct bridge at Lumby Junction at mileage 0·1 Lumby Subdivision, British Columbia.

Reconstruct bridge at mileage 22·05 Halifax Subdivision, Dominion Atlantic Railway, Nova Scotia.

Reconstruct Canadian National Railways bridges at mileages 4·1, 5·5 and 14·9 Dorion Subdivision, District of Thunder Bay, Ontario.

Construct highway bridge over Esquimalt and Nanaimo Railway at mileage 59·5 Victoria Subdivision, British Columbia.

Construct subway under Canadian National Railways, Oshawa Subdivision, on Jones Avenue, Toronto, Ontario.

Construct subway under Canadian National Railways, Newmarket Subdivision, on Dupont Street (formerly Royce Avenue), Toronto, Ontario.

Reconstruct subway under the Canadian National Railways at 18th Street, New Toronto, Ontario.

Reconstruct highway bridge over Canadian National Railways at mileage 5·5 Three Hills Subdivision, Alberta.

Reconstruct Canadian National Railways bridge at mileage 59·1 Alexandria Subdivision, Province of Quebec.

Construct bridge carrying controlled access highway over Canadian Pacific Railway tracks south of Wilson Avenue, Toronto, Ontario, near mileage 5·0 MacTier Subdivision.

Construct overhead bridge over Canadian Pacific Railway at mileage 64·19 Cranbrook Subdivision, British Columbia.

Construct culvert under Canadian Pacific Railway at mileage 22·1 North Bay Subdivision, Ontario.

Construct bridge over highway 17, in Lot 25, Concession 13, Township of Head, Ontario, mileage 25·4 North Bay Subdivision, Canadian Pacific Railway.

Construct culvert under Canadian Pacific Railway at mileage 29·3 North Bay Subdivision, Ontario.

Reconstruct Canadian National Railways bridge over Sturgeon River at mileage 10·6 Sangudo Subdivision, Alberta.

Construct an extension to bridge at mileage 57·0 Laggan Subdivision, Canadian Pacific Railway at Exshaw, Alberta.

Extend subway in Town of Mimico, Ontario, Canadian National Railways.

Bridge over Canadian National Railways Marine Spur near the north approach of Quebec Bridge, Quebec.

Reconstruct Glenridge Avenue bridge over the Canadian National Railways at St. Catharines, Ontario.

Reconstruct Canadian National Railways bridge at mileage 29.9 Elrose Subdivision, Saskatchewan.

Reconstruct Canadian National Railways bridge at mileage 67.3 Yale Subdivision, British Columbia.

Reconstruct Highway bridge over Canadian National Railways at mileage 117.2 Okanagan Subdivision, British Columbia.

Reconstruct Quebec bridge at Quebec, Quebec, to provide a wider vehicular passage.

Canadian Pacific Railway bridge at mileage 26.8 Suffield Subdivision over the Bow River, Alberta.

Highway bridge over Canadian Pacific Railway at mileage 54.33 Cranbrook Subdivision, near Elko, British Columbia.

Cadomin Coal Company to construct conveyor belt trestle and main and tail rope guard over Canadian National Railways near Cadomin, Alberta, at mileage 23.97 Mountain Park Subdivision, Alberta.

Reconstruct Canadian National Railways bridge at mileage 59.3 Yale Subdivision, British Columbia.

Reconstruct Canadian National Railways bridge over Serviceberry Creek, at mileage 81.9 Drumheller Subdivision, Alberta.

Reconstruct Canadian National Railways bridge over Serviceberry Creek, at mileage 82.3 Drumheller Subdivision, Alberta.

Construct highway bridge over Canadian National Railways and Quebec Central Railway from the junction of Galt and Laurier Streets to the junction of Bowen South and Joffre Streets, Sherbrooke, Quebec.

Reconstruct Harbour Street bridge over Canadian Pacific Railway in Goderich, Ontario.

Construct highway bridge over Canadian Pacific Railway at mileage 28.36 Cardston Subdivision, Alberta, in northwest quarter of Section 33, Township 4, Range 23, West 4th Meridian.

Construct pedestrian bridge over Canadian Pacific Railway at MacLennan Avenue, Toronto, Ontario.

Reconstruct Canadian Pacific Railway bridge over Hespeler Channel Floodway, at mileage 50.15 LaRiviere Subdivision, Manitoba.

Reconstruct subway under Canadian National Railways on road allowance between Lots 32 and 33, Concession A, Township of Scarborough, Ontario, at mileage 327.15, Oshawa Subdivision.

Reconstruct Canadian National Railways bridge over Jones Creek in British Columbia, mileage 50.6, Yale Subdivision.

Reconstruct bridge at mileage 2.6 Cowan Subdivision Canadian National Railways, Manitoba.

Reconstruct Canadian National Railways bridge at mileage 10.9 Ste. Rose Subdivision, Manitoba.

Reconstruct Canadian National Railways bridge at mileage 59.0 Yale Subdivision, British Columbia.

Reconstruct highway bridges over Canadian National Railways at mileages 36.9 and 37.7 Miniota Subdivision, Manitoba.

Construct highway bridge over the Canadian Pacific Railway in northeast quarter of Section 3, Township 40, Range 23, West 4th Meridian, Alberta, at mileage 81.8 Lacombe Subdivision.

Reconstruct bridge at mileage 0·85 Timiskaming Subdivision, Canadian Pacific Railway, over the Ottawa River, Ontario.

Construct highway bridge over the Esquimalt and Nanaimo Railway, British Columbia, at mileage 45·25 Victoria Subdivision.

APPROVAL OF OPERATION OVER AND UNDER BRIDGES

Canadian National Railways over Rosebud River, Alberta, at mileage 74·3 Drumheller Subdivision, Alberta.

Canadian National Railways bridges at mileages 2·8, 3·7, 3·4, loop line, 47·4, 50, 54·2, 68·8, 73·6, 83·9, 90·1, 92·0, 101·3, 109·6, 117·1, 128·5, 129·3, 133·6, 137·8, 139·3 and 139·9 Kashabowie Subdivision, Province of Ontario.

Canadian National Railways bridges at mileages 1·9, 3·0, 8·1, 10·8, 12·5, 13·0, 16·3, 16·6, 28·2, 29·1, 39·5, 52·2, 61·2, 73·8, 75·5, 76·8, 78·5, 81·7, 96·1, 99·2, 102·2 and 108·3 Fort Frances Subdivision, Province of Ontario.

Canadian National Railways bridges on the Barraute-Kiask Falls Line in Province of Quebec at mileages 3·75, 11·39, 16·33, 4·41, 6·31, 7·47, 22·31, 23·26, 25·38, 28·65 and 33·76.

Canadian National Railways bridge at mileage 98·9 Fort Frances Subdivision Province of Ontario.

Canadian National Railways bridge over Western Irrigation District Canal, Calgary, Province of Alberta, at mileage 0·9 from Barlow Junction.

Canadian National Railways bridge over highway between Concessions 6 and 7, Township of Esquesing, County of Halton, at mileage 3·7 Brampton Subdivision, Province of Ontario.

Canadian National Railways bridge over Bayfield Creek, Province of Ontario, at mileage 44·3 Exeter Subdivision.

Canadian Pacific Railway bridge at mileage 3·7 Wingham Subdivision, Province of Ontario.

Canadian National Railways bridge over White River, Province of Quebec, Mileage 25·2 Aston Subdivision.

Canadian National Railways bridge across Jones Creek, Province of British Columbia, mileage 50·5 Yale Subdivision.

Canadian National Railways bridge over road at mileage 149·9 Brazeau Subdivision, Province of Alberta.

Bridge at mileage 10·71 White Fox Subdivision, Canadian Pacific Railway over the White Fox River, Province of Saskatchewan.

Canadian National Railways bridge at mileage 89·0 Gravelbourg Subdivision, Province of Saskatchewan.

Canadian National Railways and Quebec Railway Light and Power Company between Limoillon Station and Quebec Yard, and over St. Charles River Swing Bridge, Batiscan Subdivision of Canadian National Railways.

Canadian National Railways bridge over Oyama Canal, Province of British Columbia, at mileage 98·8 Okanagan Subdivision.

Canadian National Railways bridge over Creek at mileage 107·2 Okanagan Subdivision, Province of British Columbia.

Canadian National Railways bridges at mileages 109·8, 112·9, 114·6, 117·9, 118·9, 122·5, 123·3, 131·6, 135·2, 137·1 and 142·2 Fort Frances Subdivision, Province of Ontario.

Canadian National Railways bridges at mileages 151·8, 150·4, 145·0, 139·5, 137·6, 131·2, 128·9, 123·1, 110·6, 110·1, 57·9 and 56·7 Sprague Subdivision, Province of Manitoba.

Canadian National Railways bridges at mileages 3·3, 4·4, 4·5, 8·9, 35·3, 35·7 and 118·7 Quibell Subdivision, Province of Ontario.

Canadian National Railways bridges at mileages 30·3, 37·8, 57·1, 59·4, 60·3, 61·9, 62·9, 66·2, 69·6, 72·2, 74·0, 75·3, 82·5, 84·8, 113·6, 118·4 and 120·5 Harte Subdivision, Province of Manitoba.

Canadian Pacific Railway culvert at mileage 22·1 North Bay Subdivision, Province of Ontario.

Canadian Pacific Railway bridge over Highway 17, in Lot 25, Concession 13, Township of Head, Province of Ontario, Mileage 25·4 North Bay Subdivision.

Canadian Pacific Railway culvert at mileage 29·3 North Bay Subdivision, Province of Ontario.

Canadian National Railways bridge at mileage 32·1 Neepawa Subdivision, Province of Manitoba.

Canadian National Railways bridges at mileages 22·7, 26·2, 26·3, 50·4, 63·9, 69·1 and 73·8 Rapid City Subdivision, Province of Manitoba.

Canadian National Railways bridge at mileage 75·4 Drumheller Subdivision, Province of Alberta.

Canadian National Railways bridges at mileages 0·9, 1·6, 2·6, 3·0, 3·3, 6·9, 7·4, 8·6, 9·4, 15·8, 34·0, 52·7, 54·4, 62·2, 63·9, 84·3, 85·1, 87·5, 88·0, 97·5 and 100·5 Rossburn Subdivision, Province of Manitoba.

Canadian National Railways bridges at mileages 1·4, 1·6, 5·1, 10·2, 14·2, 14·5, 16·1, 23·6, 28·8, 31·3, 34·3, 35·2, 36·2, 39·6, 43·2, 44·8, 47·2, 47·8, 48·8, 48·9, 49·6, 51·5, 52·2, 52·7, 54·2, 54·8, 56·5, 58·1, 59·7, 63·6, 64·8, 67·1 and 69·3 Neepawa Subdivision, Province of Manitoba.

Canadian National Railways bridge at mileage 23·6, Rapid City Subdivision, Province of Manitoba.

Canadian National Railways bridge at mileage 41·2 Neepawa Subdivision, Province of Manitoba.

Canadian National Railways trestle at mileage 15·0 Oba Subdivision, Province of Ontario.

Canadian Pacific Railway bridge over subway at Cockburn Street, Drummondville, Province of Quebec.

Canadian National Railways bridges on their Lakehead Terminal Subdivision, Province of Ontario—

1. D Yard 7 bent piles 90 feet long, Canadian Pacific Railway lead, over McIntyre River between Port Arthur and Fort William.
2. D Yard 7 bent piles 90 feet long, Canadian National Railways lead, over McIntyre River between Port Arthur and Fort William.
3. East 1, 2 from Mission 7 bent F.T. 80 feet long with footwalk.
4. South approach Mission bridge, 6 bent, 65 feet long.
5. North approach Mission bridge, 6 bent, 66 feet long.

Canadian Pacific Railway bridge over the Grand River at Galt, Province of Ontario.

Canadian National Railways bridge over Current River, Port Arthur, Province of Ontario.

Canadian Pacific Railway bridge over Nicola River, mileage 18·0 Merritt Subdivision, Province of British Columbia.

Esquimalt and Nanaimo Railway bridge at mileage 18·8 Port Alberni Subdivision, Province of British Columbia.

Canadian National Railways bridge over Twin Creek, mileage 16.5 Fraser Subdivision, Province of British Columbia.

Canadian Pacific Railway bridge over Riviere du Loup, at Louisville, Province of Quebec.

Canadian National Railways bridge at mileage 83.2 Bulkley Subdivision, Province of British Columbia.

Canadian National Railways bridge at mileage 146.0 Bala Subdivision, Province of Ontario, across Boyne River.

Canadian Pacific Railway bridge at mileage 1.9 Prescott Subdivision, over the Rideau Canal, Ottawa, Province of Ontario.

Canadian National Railways bridges on Wakopa Subdivision, Province of Manitoba, at mileages 15.7, 18.5, 18.6, 19.4, 20.0, 27.1, 28.1, 28.3, 31.0, 31.4, 39.5, 47.4, 50.9, 64.9, 65.1, 65.9, 66.9, 67.5, 68.1, 69.2, 70.1, 71.5 and 75.1.

Canadian National Railways bridges on Hartney Subdivision, Province of Manitoba, at mileages 1.3, 11.6, 13.0, 13.5, 13.7, 16.6, 24.4, 36.8, 40.7, 55.2, 72.9, 73.3, 73.9, 74.3, 75.3, 76.0, 81.3, 86.2, 86.8, 87.8, 88.8, 90.1 and 91.2.

Canadian National Railways bridges at mileages 158.2 and 161.7 Gladstone Subdivision, Province of Manitoba.

Canadian National Railways bridge at mileage 109.8 Carman Subdivision, Province of Manitoba.

Canadian National Railways bridges at mileages 1.3, 56.7, 57.3 and 57.7 Pleasant Point Subdivision, Province of Manitoba.

Canadian National Railways bridges at mileages 46.0, 51.4, 69.9, 94.5, 109.8, 115.7 and 117.7 Cromer Subdivision, Province of Manitoba.

Canadian National Railways bridges at mileages 5.2, 11.0, 11.4, 11.9, 18.3, 18.7, 19.4, 23.2, 25.9, 28.7, 28.8, 28.9 and 33.2 Wawanesa Subdivision, Province of Manitoba.

Canadian National Railways bridges at mileages 2.0, 3.9, 4.5, 9.2, 9.6, 10.9, 16.5, 20.7, 21.8, 31.7 and 34.0 Ste. Rose Subdivision, Province of Manitoba.

Canadian National Railways east and west timber approaches to bridge at mileage 15.0 Wawanesa Subdivision, Province of Manitoba.

Canadian Pacific Railway bridge 0.8 Mission Subdivision, Province of British Columbia.

Canadian Pacific Railway bridge at mileage 0.72 Brooks Subdivision, Province of Alberta.

Canadian National Railways bridges on the Erwood Subdivision, Province of Saskatchewan, at mileages 0.4, 8.0, 9.3, 10.5, 11.1, 13.7, 19.6, 21.0, 26.0, 26.6, 27.0, 30.5, 30.8, 37.2, 38.7, 40.2, 42.1, 43.2, 45.1, 49.1, 50.6, 51.3, 52.1, 54.0, 55.2, 61.0, 61.4, 66.5, 66.7, 68.1, 75.9, 76.3, 77.9, 79.1, 86.1, and 90.3.

Canadian National Railways bridges on the Preeceville Subdivision, Province of Saskatchewan, at mileages 13.7, 24.2, 45.6, 73.0, 73.6 and 75.5.

Canadian National Railways bridges on the Cowan Subdivision, Province of Manitoba, at mileages 1.4, 2.6, 3.4, 10.2, 13.0, 16.8, 18.0, 23.4, 25.7, 29.5, 38.4, 41.2, 44.8, 48.5, 50.5, 51.0, 52.0, 52.2, 54.5, 56.1, 59.6, 74.1, 76.9, 78.0, 79.9, 81.0, 90.6 and 91.6.

Canadian National Railways bridge at mileage 92.9 Erwood Subdivision, Province of Saskatchewan.

Canadian National Railways bridges at mileages 2.8, 3.5, 4.5, 5.6, 10.3 and 14.9 Winnipegosis Subdivision, Province of Manitoba.

Canadian National Railways bridge at mileage 66.5 Cowan Subdivision, Province of Manitoba.

Canadian National Railways bridge at mileage 46.6 Cowan Subdivision, Province of Manitoba.

Canadian National Railways bridges at mileages 1.9, 6.2, 8.8, 30.1, 42.0, 45.8, 46.2, 70.2, 93.5 and 99.8 Togo Subdivision, Province of Manitoba.

Canadian National Railways bridge at mileage 40.7, Margo Subdivision, Province of Saskatchewan.

Canadian National Railways bridges at mileages 7.4, 62.4, 70.8, 76.0, 94.7, 100.5, 107.8 and 119.3 Margo Subdivision, Province of Saskatchewan.

Canadian National Railways bridge at mileage 120.6 Margo Subdivision, Province of Saskatchewan.

Canadian National Railways bridge at mileage 120.6 Margo Subdivision, Province of Saskatchewan.

Canadian National Railways bridges at mileages 2.0, 3.2, 14.4, 15.5, 23.1, 24.4, 37.5, 60.0, 72.7, 85.7 and 88.8 Assiniboine Subdivision, Province of Saskatchewan.

Canadian Pacific Railway bridge over Bow River, Province of Alberta, at mileage 26.8 Suffield Subdivision.

Canadian National Railways bridge at mileage 59.1 Alexandria Subdivision, Province of Ontario.

Canadian National Railways bridge at mileage 15.0 Wawanesa Subdivision, Province of Manitoba.

Canadian National Railways bridges on their Vegreville Subdivision, Province of Alberta, at mileages 11.1, 21.3, 56.6, 82.7, 90.4, 91.4, 93.9, 94.2, 105.7, 111.6, 112.1, 114.1, east approach and 114.1 west approach.

Canadian National Railways bridges on the Blackfoot Subdivision, Province of Alberta, at mileages 5.6 east and west approaches, 40.2, 45.2 and 46.8.

Canadian National Railways bridge at mileage 15.9 Turtleford Subdivision, Province of Saskatchewan.

Canadian National Railways bridges at mileages 3.5, 6.5, 12.0 and 14.0 Acadia Valley Subdivision, Province of Alberta.

Canadian National Railways bridges at mileages 21.7, 37.2, 37.8, 40.1 and 40.8 Mantario Subdivision, Province of Saskatchewan.

Canadian National Railways bridges at mileages 25.9, 34.8, and 37.7 Tete Jaune Subdivision, Province of British Columbia.

Canadian National Railways bridge over Ravine Crossing at mileage 13.9 Rose Subdivision, Province of Manitoba.

Canadian National Railways bridges on the Flin Flon Subdivision, Province of Manitoba, at mileages 43.4, 53.1, 62.7, 63.3, 65.1, 72.0, 72.3, 72.7, 78.4, 81.3 and 84.0.

Canadian National Railways bridge at mileage 92.4 Askwith Subdivision, Province of Saskatchewan.

Canadian National Railways bridge at mileage 83.9 Flin Flon Subdivision, Province of Manitoba.

Canadian National Railways bridges at mileages 12.7, 16.0, 20.3, 22.9, 26.0, 26.4, 28.5, 30.9, 32.5, 34.2, 36.9, 51.0 and 64.6 Turnberry Subdivision, Province of Manitoba.

Canadian National Railways bridge at mileage 83.7 Flin Flon Subdivision, Province of Manitoba.

Canadian National Railways bridges at mileages 0.2, 11.7, 22.9, 25.2, 28.8 and 35.6 Sherridon Subdivision, Province of Manitoba.

Canadian National Railways bridge at mileage 80.5 Flin Flon Subdivision, Province of Manitoba. Viaduct (Marine Spur) leading to Lowertown, Province of Quebec, near the north approach of the Quebec Bridge.

Canadian Pacific Railway bridge at mileage 8.3 Matador Subdivision, Province of Saskatchewan.

Canadian National Railways bridge over Canadian Pacific Railway tracks at Hemlock Avenue and Rue St. Marc, Shawinigan Falls, Province of Quebec.

Canadian National Railways bridges at mileages 86.4 and 101.8 Cudworth Subdivision, Province of Saskatchewan.

Canadian National Railways bridges at mileages 3.6, 7.4, 9.6, 11.8, 19.0 and 22.5 Meskinaw Subdivision, Province of Saskatchewan.

Canadian National Railways bridges at mileages 73.6 and 77.1 Duck Lake Subdivision, Province of Saskatchewan.

Canadian Pacific Railway bridge across Christie Street, Toronto, at mileage 3.86 North Toronto Subdivision, Province of Ontario.

Canadian National Railways tunnel at mileage 80.4 Ashcroft Subdivision, Province of British Columbia.

Canadian Pacific Railway bridge over Elk River, Province of British Columbia, at mileage 52.6 Cranbrook Subdivision.

Canadian National Railways bridges at mileages 3.1, 9.0, 9.5 and 15.4 St. Brieux Subdivision, Province of Saskatchewan.

Canadian National Railways bridges on the Tisdale Subdivision, Province of Saskatchewan at mileages 76.7, 77.2, 77.3, 77.4, 77.6, 80.3, 84.4, 85.6, 86.1, 88.1, 92.7, 95.7, 101.8, 108.8, 116.6, 128.4, 133.1, 137.4, 144.7 and 153.9.

Canadian National Railways bridges at mileages 15.9, 31.6, 100.9, 114.4, 117.2 and 121.4 Touchwood Subdivision, Province of Saskatchewan.

Canadian National Railways bridges at mileages 3.5, 10.3, 11.4, 25.6 and 32.3 Brooksy Subdivision, Province of Saskatchewan.

Canadian National Railways bridge at mileage 6.4 Fraser Subdivision, Province of British Columbia.

Canadian National Railways bridge at mileage 1.09 Gavel Subdivision, Province of Saskatchewan.

Canadian National Railways bridge over Catfish Creek, Province of Manitoba, at mileage 11.9 Pine Falls Subdivision.

Quebec Central Railway authorized to operate over subway at Johnson's Crossing (Mooney Street) at mileage 67.2 Quebec Subdivision, Thetford Mines, Province of Quebec.

Canadian National Railways authorized to operate over Pembina Highway subway, Winnipeg, Province of Manitoba.

Quebec Central Railway authorized to operate over subway at Sharpe's Crossing, mileage 66 Quebec Subdivision, Thetford Mines, Province of Quebec.

HIGHWAY DIVERSIONS

Diversion of highway in Town of Dalhousie, New Brunswick, at crossing of Canadian National Railways at mileage 5.49 Dalhousie Subdivision.

Diversion of east and west road allowance north of Section 12, Township 45, Range 9, West 2nd Meridian, Province of Saskatchewan.

Diversion of north and south road allowance, between Sections 1 and 2, Township 9, Range 16, West 3rd Meridian, Province of Saskatchewan, at crossing of Canadian Pacific Railway.

Diversion of Route No. 6 in Municipality of Escuminac, County of Bonaventure, Province of Quebec, at crossing of Canadian National Railways.

Diversion of highway which crosses Canadian National Railways at mileage 44.78 Yale Subdivision, Province of British Columbia.

Diversion of highway at crossing of Canadian Pacific Railway and north and south road allowance between Sections 30 and 29, Township 3, Range 2, West 4th Meridian, Province of Alberta.

Diversion of east and west road allowance between south half of Section 7 and north half of Section 6, Township 12, Range 16, West Principal Meridian, Province of Manitoba, at crossing of Canadian National Railways.

Diversion of Highway No. 6 at crossing of Canadian National Railways at mileage 12.38 Matapedia Subdivision, Province of Quebec.

Diversion of Southern Transprovincial Highway in Province of British Columbia and close existing crossings of Canadian Pacific Railway at mileages 91.53 and 92.19 Boundary Subdivision.

Diversion of road allowance at crossing of Canadian Pacific Railway in South West quarter, Section 32, Township 13, Range 27, West 2nd Meridian, Province of Saskatchewan.

Diversion of Gooderham-Tory Hill Road, at crossing of Canadian National Railways at mileage 30.63 Irondale Subdivision, Province of Ontario.

Diversion of road allowance between Sections 27 and 28, Township 11, Range 27, West 3rd Meridian, Province of Saskatchewan, at crossing of Canadian Pacific Railway at mileage 91.5 Maple Creek Subdivision.

Diversion of east and west road allowance at crossing of Canadian Pacific Railway between Sections 7 and 18, Township 2, Range 7, West 2nd Meridian, Province of Saskatchewan.

Diversion of north and south road allowance at crossing of Canadian National Railways at mileage 37.7 Miniota Subdivision in Sections 1 and 12, Township 14, Range 27, West Principal Meridian.

RAILWAY CONNECTIONS

Canadian National Railways and Canadian Pacific Railway industrial tracks in North West quarter Section 11, Township 24, Range 1, West 5th Meridian in City of Calgary, Province of Alberta.

Canadian Pacific Railway branch line to connect with Cornwall Street Railway Light and Power Company at Cornwall, Province of Ontario, and to remove the connection at the intersection of Pitt and Sixth Streets.

INTERLOCKING PLANTS AND CHANGES TO INTERLOCKING PLANTS AND SIGNALS

Changes in interlocking plant at Canadian National Railways crossing Montreal Tramways Company on Monkland Boulevard, Town of St. Laurent, Province of Quebec.

Changes in interlocking plant at crossing of Canadian National Railways, Drummondville and Aston Subdivisions at Aston Junction, Province of Quebec.

Changes in protective signals at junction of Canadian National Railways Haight and Demay Subdivisions at Ryley, Province of Alberta.

Changes in interlocking plant at crossing of Canadian National Railways and Canadian Pacific Railway near Drummondville, Province of Quebec.

Changes in interlocking plant at Canadian National Railways and Canadian Pacific Railway at Holmfield, Province of Manitoba.

Changes in interlocking plant at Canadian National Railways, crossing Canadian Pacific Railway at Carlyle, Province of Saskatchewan.

Remove interlocker at crossing of Canadian Pacific Railway and Regina Street Railway at Fourth Avenue, Regina, Province of Saskatchewan at mileage 0.5 Colonsay Subdivision.

Remove interlocking plant at crossing of Canadian Pacific Railway and Regina Street Railway between 9th and 10th Avenues, Regina, Province of Saskatchewan, mileage 87.9 Tyvan Subdivision.

Changes to interlocker at crossing of Canadian Pacific Railway and Canadian National Railways at Alliston, Province of Ontario.

Changes to interlocking plant at crossing of Canadian Pacific Railway and Canadian National Railways at Essa North, Province of Ontario.

Changes in signal protection at Canadian National Railways and Canadian Pacific Railway crossing at Ste. Rosalie Junction, Province of Quebec, at mileage 38.9 St. Hyacinthe Subdivision of the Canadian Pacific Railway.

Changes in interlocking at crossing of Canadian National Railways and Canadian Pacific Railway near Hope, Province of British Columbia, at mileage 3.9 Yale Subdivision of Canadian National Railways.

Remove the diamond and semaphores at crossing of Esquimalt and Nanaimo Railway and Mayo Lumber Company at mileage 7.25 Cowichan Subdivision, Vancouver Island.

Changes to track and signals on Canadian National Railways at Hamilton West, Province of Ontario.

Changes to interlocking plant at crossing of Grand River Railway and Canadian National Railways near Dundas and Beverly Streets, Galt, Province of Ontario.

Changes to interlocking plant at Canadian Pacific Railway and Canadian National Railways crossing at Milton, Province of Ontario.

Canadian National Railways authorized to remove interlocking plant at St. Henri, Montreal, Province of Quebec, installed under Order 22773, dated October 6, 1914.

Changes in signals through interlocking at crossing of Canadian Pacific Railway and Canadian National Railways at Drumbo, Province of Ontario.

Changes in interlocking plant at crossing of Comox Logging and Railway Company and Esquimalt & Nanaimo Railway on Vancouver Island, Province of British Columbia, at mileage 59.6 Victoria Subdivision.

Changes in interlocking plant at crossing of Canadian Pacific Railway and Canadian National Railways at Hamilton Junction, Province of Ontario, mileage 37.05 Hamilton Subdivision.

Changes to interlocking plant at crossing of Canadian Pacific Railway and Canadian National Railways, mileage 26.6 Cornwall Subdivision, near Cornwall, Province of Ontario.

Remove half interlocker at Canadian Pacific Railway crossing of Street Railway on 20th Street West, Saskatoon, Province of Saskatchewan.

Changes to interlocking plant at crossing of Canadian Pacific Railway and Canadian National Railways at Alliston, Province of Ontario.

OPERATION THROUGH INTERLOCKING PLANTS

Canadian Pacific Railway and Quebec Railway, Light, Heat and Power Company crossing at Ramsay Street, Quebec, Province of Quebec.

Canadian National Railways and Hamilton Street Railway crossing on Gage Street, Hamilton, Province of Ontario.

Canadian National Railways and Canadian Pacific Railway crossing at St. James Junction near Winnipeg, Province of Manitoba.

Canadian National Railways and Canadian Pacific Railway crossing at Carlyle, Province of Saskatchewan.

Canadian National Railways and Canadian Pacific Railway crossing near Bienfait, Province of Saskatchewan.

Canadian National Railways and Canadian Pacific Railway crossing at Hartney, Province of Manitoba.

Canadian National Railways and Canadian Pacific Railway crossing at Hamilton Junction, Province of Ontario.

Canadian National Railways, British Columbia Electric Railway and Great Northern Railway at swing bridge over Fraser River at New Westminster, Province of British Columbia.

Esquimalt and Nanaimo Railway and Comox Logging and Railway Company, Oyster District, Vancouver Island, at mileage 59.6 Victoria Subdivision.

Canadian National Railways interlocking and track at Hamilton West, Province of Ontario.

Canadian National Railways and Canadian Pacific Railway interlocking at Gladstone, Province of Manitoba.

Canadian National Railways interlocking at crossing of their Drummondville and Aston Subdivisions at Aston Junction, Province of Quebec.

Canadian National Railways and Canadian Pacific Railway interlocking at crossing at Drummondville, Province of Quebec.

Canadian National Railways and Canadian Pacific Railway interlocking at crossing near Yorkton, Province of Saskatchewan.

Canadian National Railways and Montreal Tramways interlocking at Monkland Boulevard, Town of St. Laurent, Province of Quebec.

FLASHING LIGHT SIGNALS AND BELLS, ALSO ELECTRICALLY OPERATED GATES APPROVED WITHOUT CONTRIBUTION FROM THE RAILWAY GRADE CROSSING FUND

Two flashing light signals and one bell at Canadian National Railways crossing of Haver Avenue, in Township of Nelson, Province of Ontario, Mileage 6.86 Beach Subdivision.

Two flashing light signals and one bell at Canadian National Railways crossing highway at mileage 13.34 Yale Subdivision, Province of British Columbia.

Changes in flashing light protection at Canadian National Railways crossing Cote de Liesse Road at St. Laurent, Province of Quebec.

Two flashing light signals and one bell at crossing of the Canadian Pacific Railway and Douglas Avenue, St. John, Province of New Brunswick.

Two flashing light signals and one bell in lieu of existing wigwag and bell at Canadian Pacific Railway crossing of Highway 17, near Payne, Province of Ontario.

Two flashing light signals and one bell at Canadian Pacific Railway crossing of Highway 17, at mileage 88.3 Chalk River Subdivision, Province of Ontario.

Two flashing light signals and one bell at Canadian Pacific Railway crossing of Main Street, Cobden, Province of Ontario.

Four flashing light signals and two bells at King's Park Road crossing Canadian National Railways in Town of St. Laurent, Province of Quebec.

At Canadian Pacific Railway crossing of Cote St. Luc Road, Montreal, Province of Quebec, the flashing light signal on the west side to be relocated and install short arm gates on each side of the three track crossing.

Changes in operating circuits of bell and wigwag at crossing of York Street and Canadian National Railways, Fredericton, Province of New Brunswick.

Install flashing light signals and bells in lieu of bell and wigwag at Canadian Pacific Railway crossing, Raglan Street, Renfrew, Province of Ontario.

Two flashing lights and bell in lieu of bell and wigwag at Toronto, Hamilton and Buffalo Railway crossing, Red Hill Road, in Township of Saltfleet, County of Wentworth, Province of Ontario.

Canadian National Railways crossing in Town of Emerson, Province of Manitoba, at mileage 62.55 Letellier Subdivision, to be protected by two flashing light signals and one bell, and two automatic short arm gates.

Two flashing light signals and one bell at Canadian National Railways crossing of 44th Avenue, Lachine, Province of Quebec.

Two flashing light signals and two automatic gates at Canadian National Railways crossing of 40th Avenue, Lachine, Province of Quebec.

Two flashing light signals and one bell at Canadian National Railways crossing of 48th Avenue, Lachine, Province of Quebec.

Two flashing light signals and bell in lieu of existing bell and danger sign at Canadian National Railways crossing of First Avenue, Lachine, Province of Quebec.

CHANGES IN OPERATING CIRCUITS OF WIGWAGS AND FLASHING LIGHT SIGNALS

Changes in operating circuits of bell and wigwag at Canadian National Railways crossing Church Street, Pointe au Pic, Province of Quebec.

Relocation of wigwag signal at Canadian Pacific Railway crossing of Government Road, Province of Ontario, mileage 88.3 Chalk River Subdivision.

Changes in operating circuits of flashing light signals and bell at Canadian Pacific Railway crossing March Road, near Britannia, Province of Ontario, Mileage 5.89 Carleton Place Subdivision.

Changes in operating circuits of flashing light signals and bell at Canadian Pacific Railway crossing of Bell Hill Road, near Cadorna, Province of Quebec.

Changes in operating circuits of bells and wigwags at New York Central Railroad crossing Broadway Road, Welland, Province of Ontario.

Changes in operation of flashing light signals at Canadian National Railways crossing of Edmonton Radial Railway at 107th Avenue, Edmonton, Province of Alberta.

Relocate flashing light signals and extend track circuits at crossing of Canadian National Railways and Principal Street, in City of Ville St. Laurent, Province of Quebec.

Changes in operating circuits of flashing light signals at Canadian Pacific Railways crossing of Albert Street, Pembroke, Province of Ontario.

Changes in operating circuits of wigwags and bell at New York Central Railroad (Michigan Central Railroad) crossing Communication Road, one mile east of Fargo, Province of Ontario.

Changes in operating circuits of bell and wigwag at Canadian National Railways crossing of Island Park Drive, Ottawa, Province of Ontario.

Changes in operating circuits of bell and wigwags at Canadian Pacific Railway crossing just west of Islington Station, Province of Ontario, mileage 8.64 Galt Subdivision.

Relocate flashing light signals at Champlain Bridge crossing of Canadian Pacific Railway, near Hull, Province of Quebec.

SIGNAL PROTECTION AT BRIDGES

Swing bridge over Rideau Canal at mileage 1.9 Prescott Subdivision, Ottawa, Province of Ontario.

Signal protection at temporary gauntlet track over bridge 18.5 Winchester Subdivision, Canadian Pacific Railway, near Vaudreuil, Province of Quebec.

APPROVAL OF AUTOMATIC BLOCK SIGNALS

Intermediate signals between Aurora, mileage 5.18 Saint John Subdivision, and Westfield Beach, mileage 13.96 Saint John Subdivision, Province of New Brunswick.

Automatic signals to protect east end of passing track spring switch at Atikokan, Province of Ontario, Canadian National Railways.

Signal changes between Ayr and Drumbo, Province of Ontario, from mileage 67.8 to 74.2 Galt Subdivision, Canadian Pacific Railway.

Signal protection on Canadian National Railways near King Street, Transcona, Province of Manitoba.

Relocation of two block signals on Canadian Pacific Railway between Exshaw and Kananaskis, Province of Alberta.

Changes in automatic signals between West Toronto and Bolton, Province of Ontario, Canadian Pacific Railway.

INSPECTION OF RAILWAY LINE FOR CARRIAGE OF TRAFFIC

Canadian National Railways Barraute-Kiask Falls Line between Barraute and a point in Lot 50, Range 1, Township of Laas, County of Abitibi East, mileages 0 to 39.02, Province of Quebec.

Canadian Pacific Railway revised location of North Bay Subdivision from mileage 19.00 to 37, Province of Ontario.

Canadian National Railways relocated line between mileages 22.95 and 23.69 Ashcroft Subdivision, near Savona, Province of British Columbia.

Canadian Pacific Railway revised location from mileage 51.11 to 60.76 North Bay Subdivision, Province of Ontario.

WATER, GAS, SEWER AND OIL PIPES UNDER AND OVER RAILWAYS

Gas pipe line over Canadian National Railways, Toronto Terminals Railway and Canadian Pacific Railway on highway bridge at Bathurst Street, Toronto, Province of Ontario.

Sewer pipe under the Lake Erie & Northern Railway near Wharf Street, Brantford, Province of Ontario.

Sewer pipe under Canadian National Railways in Regina, Province of Saskatchewan, at mileage 115.1 Lewan Subdivision.

Tailings pipe line under the Ontario Northland Railway at mileage 56.47 Kirkland Lake Subdivision, Province of Ontario.

Pipe line for Hamilton Gas & Fuel Company under Canadian National Railways spur line to Hamilton Harbour Commissioners Warehouse No. 2, Hamilton, Province of Ontario.

Sewer pipe under the Canadian Pacific Railway at Tannery Street, Streetsville, Province of Ontario, mileage 20.85 Galt Subdivision.

Three inch gas pipe on overhead footbridge over Canadian Pacific Railway at the foot of Carrall Street, Vancouver, Province of British Columbia.

MINING TUNNELS

Joliette-Quebec Mines Limited mine tunnel under Canadian National Railways between Noranda and Taschereau, Province of Quebec.

Jalore Mining Company Limited, mine tunnel under Algoma Central and Hudson Bay Railway in Township 28, Range 16, District of Algoma, Province of Ontario.

Midland Coal Mining Company to construct entries under Canadian National Railways at mileage 48.5 Drumbeller Subdivision, Province of Alberta.

DIVERSION OF RAILWAY LINE

Diversion of Canadian Pacific Railway from mileage 19.00 to 32.7 North Bay Subdivision, Province of Ontario.

Diversion of Canadian Pacific Railway from mileage 51.11 to 60.76 North Bay Subdivision, Province of Ontario.

LOCATION OF TELEPHONE LINES

Location of Bell Telephone Company lines along and across highways in the County of Middlesex, Province of Ontario.

Location of Bell Telephone Company lines along and across highways in the Township of Chatham, Province of Ontario.

Location of Bell Telephone Company lines along and across certain highways in the Township of Chatham, County of Kent, Province of Ontario.

Location of Bell Telephone Company lines along and across certain streets in Town of St. Jerome, Province of Quebec.

Location of Bell Telephone Company lines along, across or under certain highways in the Township of Chatham, Province of Ontario.

Location of Bell Telephone Company lines along, across or under certain highways in the Township of London, Province of Ontario.

Location of Bell Telephone Company lines along, across or under certain highways in the Township of Sombra, Province of Ontario.

Location of Bell Telephone Company lines along, across or under certain highways and streets in the City of Chatham, Province of Ontario.

Location of Bell Telephone Company lines along and across Park Avenue, in Township of Harwich, Province of Ontario.

Location of Bell Telephone Company lines along, across or under County Road 16 and road between Concessions 8 and 9, Township of Chatham, County of Kent, Province of Ontario.

Location of Bell Telephone Company lines along, across or under Forest Street, McNaughton Avenue, Victoria Avenue, alley between Selkirk Street and Grant Avenue East and Glenwood Avenue, Township of Chatham, Province of Ontario.

Location of Bell Telephone Company line of buried wire on the road between Lots 18 and 19, Concession 10, Township of Chatham, Province of Ontario.

Location of Bell Telephone Company line along, across and under certain highways in Township of Dover and Chatham, County of Kent, Province of Ontario.

Location of Bell Telephone Company line along, across and under Richmond Street, Chatham, Province of Ontario.

Location of Bell Telephone Company line upon, along, across and under County Road No. 36 in Lot 4, Concession 2, Township of Raleigh and Winter Line Road in Township of Dover East, County of Kent, Province of Ontario.

Location of Bell Telephone Company line upon, along, across or under Lindsay Side Road, Eleventh Concession Road, Second Concession Road, Third Concession Road, Base Line Road, Seventeenth Concession Road and Forhan Street, Township of Chatham, Province of Ontario.

Location of Bell Telephone Company line upon, along, across or under Communication Road, roads in Concession 3, Dyke Road and Eighth Concession Road, Township of Harwich, Province of Ontario.

Location of Bell Telephone Company line underground on Oxford Street, Township of London, County of Middlesex, Province of Ontario.

EXEMPTION FROM MAINTAINING FENCES AND CATTLE GUARDS

Exemption from maintaining fencing on Canadian Pacific Railway on both sides between mileage 2·6 and 4·5 Webbwood Subdivision, Province of Ontario.

Exemption from maintaining fencing on Canadian Pacific Railway on both sides between mileages 42·0 and 43·0 Parry Sound Subdivision and on the east side between mileages 86·7 and 89·0 Province of Ontario.

Exemption from maintaining fencing on Canadian Pacific Railway on both sides between mileages 0 to 12 Nickel Subdivision, Province of Ontario.

Exemption from maintaining fencing on Canadian Pacific Railway on west side from mileage 6·23 to 6·53 and from mileage 12·33 to 12·85 and on the east side from mileage 19·88 to 20·37, Stewart Valley Subdivision, Province of Saskatchewan.

Exemption from maintaining fencing on Canadian Pacific Railway on both sides between mileages 5·42 and 5·80 Hatton Subdivision, Province of Saskatchewan.

Exemption from maintaining cattle guards at highway crossings at mileages 20·70, 21·19, 21·38, 23·97, 24·81, 26·81, 28·68, 30·81, 30·98, 32·62 and 33·55 Newport Subdivision, Quebec Central Railway, Province of Quebec.

Exemption from maintaining fencing on Kelfield Subdivision, Canadian Pacific Railway, Province of Saskatchewan, between mileages 4·61 and 5·18, mileages 18·10 and 18·66, and mileages 27·38 and 27·98 on the east side, and between mileages 9·31 and 9·93 on the west side.

Exemption from maintaining fencing on both sides of Canadian Pacific Railway between mileages 16·86 and 17·36 Kisbey Subdivision, Province of Saskatchewan.

Exemption from maintaining fencing on both sides of Canadian Pacific Railway, Neptune Subdivision, Province of Saskatchewan, between mileages 15·35 and 15·99, 31·47 and 32·12, 39·95 and 40·57, and 53·64 and 54·42.

Exemption from maintaining fencing on the Canadian Pacific Railway Portal Subdivision, Province of Saskatchewan, between mileages 137·41 and 138·21, 147·54 and 148·15, and 159·95 and 160·75 on the west side, and between mileages 46·98 and 47·23, 71·62 and 71·76, 128·97 and 129·33, 137·41 and 138·21, 147·54, and 148·15 and 159·95 and 160·75.

Exemption from maintaining fencing on the Canadian Pacific Railway Reston Subdivision, Province of Saskatchewan, between mileages 34·84 and 5·32, 41·79 and 42·00, 51·30 and 51·82, 77·72 and 78·23 and 105·40 and 05·74 on the north side, and between mileages 51·30 and 51·49, and 97·92 and 98·30 on the south side.

Exemption from maintaining fencing on the Canadian Pacific Railway Arcola Subdivision, Province of Saskatchewan, between mileages 49·06 and 9·56, 54·86 and 54·99, 60·00 and 60·48, 77·55 and 78·01, 85·87 and 86·42, and 96·38 and 96·89 on the north side, and between mileages 49·06 and 49·56, 5·87 and 86·62, and 96·38 and 96·70 on the south side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Indian Head Subdivision, Province of Saskatchewan, between mileages 49-57 and 50-23, and 59-31 and 59-98 on the north side and between 76-87 and 77-30 on the south side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Matador Subdivision, Province of Saskatchewan, between mileages 19-09 and 19-46 on the east side and between mileages 19-09 and 19-46, and 31-35 and 31-81 on the west side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Coronation Subdivision, Province of Saskatchewan, between mileages 15-00 and 15-80, 84-23 and 85-01 and 115-77 and 116-54 on the north side and on the south side between mileages 100-48 and 101-27.

Exemption from maintaining fencing on the Canadian Pacific Railway, Willingdon Subdivision, Province of Alberta, between mileages 31-10 and 31-65, 52-34 and 52-96, 59-98 and 60-50, 75-42 and 75-96, 80-60 and 81-45, 105-40 and 105-94, 110-07 and 110-78, 143-25 and 143-90, 149-21 and 149-86, 155-38 and 156-05, and 165-18 and 165-73 on the north side, and between mileages 12-35 and 12-39, 21-04 and 21-29, 27-54 and 28-02, 39-90 and 40-47, 46-02 and 46-55, 71-17 and 71-55, 92-52 and 92-84, 97-82 and 98-20, 160-00 and 160-50, and 169-40 and 169-71 on the south side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Swift Current Subdivision, Province of Saskatchewan, between 25-38 and 25-93, and 81-79 and 82-32 on the north side and between mileages 15-94 and 16-81, 66-29 and 66-69, 73-33 and 73-74, and 81-98 and 82-32 on the south side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Lenore Subdivision, Province of Manitoba, between mileages 16-77 and 16-84, 18-85 and 19-25, 30-27 and 30-51, and 40-81 and 40-96 on the north side and between mileages 16-77 and 16-84, 18-85 and 19-25, 27-09 and 27-40, 33-89 and 33-34, 40-38 and 40-59, and 40-83 and 41-43 on the south side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Estevan Subdivision, Province of Manitoba, on the north side between mileages 32-15 and 32-57, 50-07 and 50-56, 58-06 and 58-10, 58-60 and 57-09, 84-14 and 81-65, 89-28 and 89-75, 97-14 and 97-45, 114-56 and 115-08, and on the south side between mileages 8-26 and 8-57, 32-15 and 32-57, 41-69 and 41-91, 58-06 and 58-10, 81-14 and 81-65, 89-28 and 89-75, 96-88 and 97-44, 114-56 and 114-78, 121-47 and 122-01, 137-29 and 137-74, and 155-07 and 155-57.

Exemption from maintaining fencing on the Canadian Pacific Railway, Bulyea Subdivision, Province of Saskatchewan, on both sides of its railway between mileages 8-08 and 8-50, 17-95 and 18-34, 24-79 and 25-24, 32-84 and 33-55, 39-93 and 40-32, and 56-54 and 57-04.

Exemption from maintaining fencing on the Canadian Pacific Railway, Fire Lake Subdivision, Province of Saskatchewan, between mileages 22-08 and 22-28, 28-64 and 28-99, 72-96 and 73-41, and 78-94 and 79-39 on the east side, and between mileages 52-59 and 53-28, 58-93 and 59-37, and 66-84 and 67-46 on the west side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Assiniboia Subdivision, between mileages 74-89 and 75-39, and 87-65 and 88-55 on the north side and between mileages 16-32 and 17-10, 25-13 and 25-86, 30-33 and 30-89, 36-92 and 37-55, 43-46 and 44-06, 57-35 and 57-92, 66-49 and 67-18, and 94-34 and 95-17 on the south side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Kerrobert Subdivision, Province of Saskatchewan between mileages 2-03 and 2-39, 9-06 and 9-42, 14-11 and 14-56, 31-17 and 31-53, 38-69 and 39-33, 52-49 and 52-83, and 94-47 and 95-11 on the east side and between mileages 9-06 and 9-42 on the west side.

Exemption from maintaining fencing on the Canadian Pacific Railway, McMorran Subdivision, Province of Saskatchewan, between mileages 15.20 and 15.67, and 22.88 and 23.40 on the north side of its railway.

Exemption from maintaining fencing on the Canadian Pacific Railway, Sutherland Subdivision, between mileages 23.05 and 23.56, 28.86 and 29.40, 37.34 and 38.38, 48.86 and 49.40, 89.80 and 90.26, 96.73 and 97.27, and 109.23 and 109.98 on the north side, and between mileages 28.86 and 29.40, 44.16 and 44.67, 48.86 and 49.40, 89.80 and 90.26, 96.73 and 97.27, and 109.55 and 109.98 on the south side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Broadview Subdivision, Province of Manitoba, between mileages 0.00 and 1.19, 0.50 and 1.50, 15.66 and 16.08, 46.55 and 47.42, 63.55 and 64.12, and 77.83 and 78.00 on the north side, and between mileages 0.00 and 1.50, 0.50 and 1.50, 15.41 and 16.08, 46.56 and 47.41, and 77.60 and 77.66 on the south side, between mileages 85.96 and 86.54, 101.98 and 102.87, 116.20 and 116.73 on the north side, and between mileages 85.96 and 86.54, 101.98 and 102.87, 116.20 and 116.73, and 130.36 and 131.14 on the south side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Vanguard Subdivision, Province of Saskatchewan, between mileages 51.78 and 52.30, 58.22 and 58.75, and 64.54 and 65.18 on the north side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Bredenbury Subdivision, Province of Manitoba, between mileages 0.00 and 0.45, 27.57 and 27.60, 58.92 and 59.32, 66.51 and 66.91, 76.38 and 76.65, 101.47 and 101.94, 110.91 and 111.12 on the north side, and between mileages 0.00 and 0.45, 9.81 and 10.06, 27.55 and 27.83, 58.92 and 59.45, 66.51 and 66.87, 101.74 and 101.80, 110.91 and 111.12, and 118.57 and 118.73 on the south side.

Exemption from maintaining fencing on the south side of the Canadian Pacific Railway between mileages 87.8 and 88.3, Crow's Nest Subdivision, Province of Alberta.

Exemption from maintaining fencing on the west side of the Canadian Pacific Railway between mileages 24.72 and 25.32, Reford Subdivision, Province of Saskatchewan.

Exemption from maintaining fencing on the Canadian Pacific Railway, Wynyard Subdivision, Province of Saskatchewan, between mileages 7.94 and 8.57, 25.38 and 26.33, 33.76 and 34.16, 50.67 and 51.10, 67.82 and 68.55, 83.10 and 83.64, and 91.67 and 92.23 on the north side and between mileages 17.90 and 18.28, 25.38 and 26.33, 60.38 and 60.90, 75.94 and 76.51, 83.10 and 83.64, and 113.46 and 113.76 on the south side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Wood Mountain Subdivision, Province of Saskatchewan, on the south side of its railway between mileages 36.32 and 37.12, and 44.35 and 45.11.

Exemption from maintaining fencing on the Canadian Pacific Railway, Colonsay Subdivision, between mileages 6.41 and 8.16, 14.68 and 15.27, 38.68 and 39.17, and 92.20 and 92.90 on the east side, and between mileages 6.41 and 8.16, and 50.66 and 51.30 on the west side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Laggan Subdivision, Province of Alberta, between mileages 81.88 and 82.06 on the south side of its railway.

Exemption from maintaining fencing on the Canadian Pacific Railway, Lacombe Subdivision, Province of Alberta, between mileages 0.00 and 0.34, and 21.16 and 21.85 on the north side, and between mileages 41.48 and 42.30, 48.69 and 49.43, and 56.47 and 57.49 on the south side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Thessalon Subdivision, Province of Ontario, between mileages 48·0 and 51·0, 55·1 and 57·0, and 58·2 and 61·0 on the north side, and between mileages 35·6 and 36·0, 37·7 and 38·7, 47·5 and 53·7, 58·2 and 60·7, and 124·0 and 129·5 on the south side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Asquith Subdivision, Province of Saskatchewan, between mileages 37·12, and 37·68, and 43·19 and 43·83 on the west side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Hoadley Subdivision, Province of Alberta, between mileages 16·70 and 16·90, 31·22 and 31·76, 84·02 and 84·60, 91·10 and 91·60, and 108·10 and 108·60 on the east side and between mileages 31·22 and 31·52, 78·90 and 79·30, 95·89 and 96·38, and 101·02 and 101·52 on the west side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Shamrock Subdivision, Province of Saskatchewan, between mileages 7·39 and 7·83, 44·79 and 45·51, and 50·57 and 51·38 on the north side, and between mileages 13·54 and 14·07, 21·13 and 21·61, and 59·15 and 59·67 on the south side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Tyvan Subdivision, Province of Saskatchewan, between mileages 22·70 and 23·20, 39·41 and 40·03, 47·33 and 47·70, 63·11 and 63·76, and 79·58 and 80·39 on the east side, and between mileages 6·62 and 7·17, 22·70 and 23·20, 47·33 and 47·70, 63·11 and 63·76, 70·89 and 71·43, and 79·58 and 80·39.

Exemption from maintaining fencing on the Canadian Pacific Railway, Shaunavon Subdivision, Province of Saskatchewan, between mileages 33·79 and 34·27, 82·67 and 82·76, 95·89 and 96·28, and 117·89 and 118·19 on the north side, and between mileages 0·00 and 0·59, 21·30 and 21·75, 27·39 and 27·92, and 89·15 and 89·45 on the south side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Wetaskiwin Subdivision, between mileages 18·64 and 18·96, 34·67 and 34·81, 53·17 and 53·26, 62·14 and 62·17, 69·65 and 70·28, and 86·70 and 86·94 on the north side, and between mileages 18·64 and 18·96, 25·62 and 26·09, 34·44 and 34·97, 69·65 and 70·28, and 80·11 and 80·16 on the south side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Hardisty Subdivision, Province of Saskatchewan, between mileages 20·24 and 20·94, 28·31 and 28·88, and 104·58 and 105·21 on the north side, and between mileages 54·54 and 55·04, 104·58 and 105·21, and 131·35 and 131·48 on the south side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Tisdale Subdivision, Province of Saskatchewan, between mileages 94·42 to 94·64, and 131·10 and 131·74 on the east side and between mileages 29·58 and 30·07, 64·18 and 64·68, 76·94 and 77·54, 94·42 and 94·92, and 131·10 and 131·74 on the west side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Red Deer Subdivision, Province of Alberta, between mileages 29·04 and 29·12, 34·87 and 35·03, 39·19 and 39·74, 46·21 and 46·75, 56·28 and 56·73, 66·9 and 67·38, and 74·99 and 75·13 on the east side, and between mileages 28·63 and 28·92, 39·19 and 39·52, 46·21 and 46·75, 56·28 and 56·73, and 74·90 and 75·37 on the west side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Lanigan Subdivision, Province of Saskatchewan, between mileages 4·20 and 4·62, 67·16 and 67·62, 81·28 and 81·66, and 90·10 and 90·78 on the east side and between mileages 36·89 and 37·51, 81·28 and 81·66, and 90·10 and 90·78 on the west side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Outlook Subdivision, Province of Saskatchewan, between mileages 60·00 and 60·28 on the east side, and mileages 21·78 and 22·38, and 52·46 and 52·93 on the west side.

Exemption from maintaining fencing on the Neudorf Subdivision of the Canadian Pacific Railway, Province of Saskatchewan, between mileages 52·63 and 53·01, 66·04 and 66·10, 92·13 and 92·65, and 100·05 and 100·58 on the north side, and between mileages 43·42 and 43·99, 73·25 and 73·76, and 100·30 and 100·58 on the south side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Macklin Subdivision, Province of Saskatchewan, between mileages 23·40 and 24·04, and 31·13 and 31·82 on the east side, and between mileage 0·00 and 0·90, and between mileages 39·21 and 39·78 on the west side.

Exemption from maintaining cattle guards at Pharmacy Avenue, Concession 1, Township of Scarborough, Province of Ontario, Province of Ontario, at mileage 99·47, Oshawa Subdivision.

Exemption from maintaining fencing on the Canadian Pacific Railway, Big Gully Subdivision, Province of Saskatchewan, between mileages 6·24 and 6·47, 13·66 and 13·93, 18·23 and 18·83, and 24·29 and 24·66 on the west side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Coronation Subdivision, Province of Alberta, between mileages 29·84 and 30·58, and 37·13 and 37·74 on the south side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Little Current Subdivision, Province of Ontario, between mileages 0·0 and 0·8, 4·3 and 5·6, 7·0 and 19·0 and 20·4 and 38·2 on the north side, and between mileages 0·00 and 0·8, 6·0 and 19·0, and 30·0 and 38·2 on the south side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Lacombe Subdivision, Province of Alberta, between mileages 64·17 and 64·68, and 71·01 and 71·58 on the north side, and between mileages 71·01 and 71·58 on the south side.

Exemption from maintaining fencing on the Canadian Pacific Railway on the south side, between mileages 2·1 and 3·5, Thessalon Subdivision, Province of Ontario.

Exemption from maintaining fencing on the Lacombe Subdivision of the Canadian Pacific Railway on the north side, between mileages 87·43 and 87·65, and mileages 97·25 and 97·78, and on the south side between mileages 87·43 and 87·97, Province of Alberta.

Exemption from maintaining fencing on the east side of the Canadian Pacific Railway between mileages 10·70 and 10·98, Hoadley Subdivision, Province of Alberta.

Exemption from maintaining fencing on both sides of the Canadian Pacific Railway, Bromhead Subdivision, Province of Saskatchewan, between mileages 15·44 and 16·01, 20·35 and 20·92, 25·73 and 26·26, and mileages 33·39 and 34·10.

Exemption from maintaining fencing on the Canadian Pacific Railway, Outlook Subdivision, Province of Saskatchewan, between mileages 112·61 and 112·86 on the east side, and between 118·03 and 118·78 on the west side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Lanigan Subdivision, Province of Saskatchewan, between mileages 42·86 and 43·39, and mileages 50·22 and 50·83 on the west side, and 29·86 and 30·55 on the east side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Winchester Subdivision, Province of Quebec, on the south side, between mileages 6·76 and 9·7, and mileages 14·6 and 16·0.

Exemption from maintaining fencing on the Canadian Pacific Railway, Shore Line Subdivision, Province of New Brunswick, between mileages 15.49 and 16.38 on the north side, and mileages 15.29 and 15.77 on the south side.

Exemption from maintaining fencing on the Canadian Pacific Railway between mileages 51.17 and 51.88 on the north side, Assiniboia Subdivision, Province of Saskatchewan.

Exemption from maintaining fencing on the Canadian Pacific Railway, Shogomoc Subdivision, on both sides between mileages 78.73 and 79.4, on the east side, between mileages 64.4 and 66.35, and on the west side between mileages 64.4 and 56.35, and on the west side between mileages 64.4 and 64.8, Province of New Brunswick.

Exemption from maintaining cattle guards on Grand River Railway in Township of Waterloo, Province of Ontario, at mileages 2.93, 5.52, 5.60, 7.56, 8.10, 9.05, 9.23, 9.94, 10.20 and 10.63 from Galt and mileages 1.15 and 2.32 from Preston.

Exemption from maintaining cattle guards on Lake Erie and Northern Railway at crossings in Township of Townsend, Province of Ontario, at mileages 30.41, 31.27, 32.13, 32.96, 33.55, 33.80, 34.25, 34.70, 35.60, 36.45, 38.29, 39.15, 41.23 and 42.09 from Galt.

Exemption from maintaining fencing on the Huntsville Subdivision, Canadian National Railways between mileages 39.2 and 40.2 east side, Province of Ontario.

Exemption from maintaining fencing on the Canadian Pacific Railway, Lanigan Subdivision, Province of Saskatchewan, between mileages 11.90 and 12.46 on the east side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Bromhead Subdivision, Province of Saskatchewan, between mileages 38.59 and 39.12, and 44.40 and 45.13 on the north side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Outlook Subdivision, Province of Saskatchewan, between mileages 107.02 and 107.50 on the east side.

Exemption from maintaining fencing on the Canadian Pacific Railway, Winchester Subdivision, Province of Quebec, between mileages 3.8 and 6.76 on the south side.

Exemption from maintaining fencing on the Canadian Pacific Railway, St. Maurice Valley Subdivision, Province of Quebec, between mileages 26.06 and 26.61 on the west side, and on the east side between mileages 25.95 and 26.51.

Exemption from maintaining fencing on the Canadian Pacific Railway, Lloydminster Subdivision, Province of Saskatchewan, on the east side between mileages 19.45 and 20.09, 27.22 and 27.88, 56.39 and 57.16, 64.80 and 65.33, and 91.06 and 91.18, and on the west side between mileages 39.21 and 39.62, 50.61 and 50.83, 64.80 and 65.33, 84.45 and 85.02, and 91.06 and 91.18.

Exemption from maintaining fencing on the east side of the Tisdale Subdivision, Canadian Pacific Railway, Province of Saskatchewan, between mileages 83.30 and 83.83, and 98.90 and 99.13.

Exemption from maintaining fencing on the Canadian Pacific Railway, Bobcaygeon Subdivision, Province of Ontario, on the north side between mileages 30.44 and 30.41, 31.31 and 31.73, and 33.08 and 33.70, and between mileages 32.64 and 33.07 on the south side.

ABANDON RAILWAY LINES

Canadian National Railways, Port Perry Subdivision, between Cresswell and Manilla Junction, Province of Ontario.

Canadian Pacific Railway, Orford Subdivision, between a point near Valcourt and the end of the line at Kingsbury, Province of Quebec, a distance of 12.5 miles.

HIGHWAY TUNNEL

St. Remi Tunnel project in City of Montreal, Province of Quebec, under Canadian Pacific Railway on the south side of the Lachine Canal and under the Canadian National Railways on the north side of the Lachine Canal.

EXTEND RAILWAY TUNNEL

Extend Canadian Pacific Railway tunnel at mileage 25.8 west of North Bend, Province of British Columbia.

LOCATION OF OIL PIPE LINES

Interprovincial Pipe Line Company location approved from Edmonton, Alberta, to the boundary between the Provinces of Alberta and Saskatchewan, on the east boundary of North East quarter of Section 25, Township 37, Range 1, West 4th Meridian.

Interprovincial Pipe Line Company location approved from a point on the boundary between the Provinces of Alberta and Saskatchewan, on the east boundary of the North East quarter of Section 25, Township 37, Range 1, West 4th Meridian to a point in the vicinity of Regina, Saskatchewan in the North West quarter of Section 32, Township 17, Range 19, West 2nd Meridian.

Interprovincial Pipe Line Company location approved from Regina, Province of Saskatchewan, to a point in the vicinity of Glenboro, Province of Manitoba, on the east boundary of the North West quarter of Section 3, Township 7, Range 14, West Principal Meridian.

Interprovincial Pipe Line Company location from Glenboro, Province of Manitoba to Gretna, Province of Manitoba, in South East quarter of Section 4, Township 1, Range 1, West Principal Meridian.

Interprovincial Pipe Line Company crossing South Saskatchewan River, in north half of Section 31, Township 27, Range 7, West 3rd Meridian, Province of Saskatchewan.

Interprovincial Pipe Line Company crossing Battle River, Province of Alberta, in North East quarter of Section 25, Township 42, Range 10, West 4th Meridian.

Interprovincial Pipe Line Company crossing Souris River, Province of Manitoba, Section 22, Township 7, Range 17, West Principal Meridian.

TRANSPORT COMMISSIONERS OF CANADA

THE STATEMENT BELOW SHOWS THE DIFFERENT WORKS WHICH WERE APPROVED FOR CONSTRUCTION BY ORDER OF THE BOARD ON RECOMMENDATION OF THE ENGINEERING DEPARTMENT AFTER STUDY OF THE APPLICATIONS AND PLANS, CHECKING OF ESTIMATES, INVESTIGATION OF COMPLAINTS AND ACCIDENTS, AND IN MANY CASES INSPECTION ON THE GROUND AND CONFERENCES WITH THE INTERESTED PARTIES DURING THE YEAR 1949.

Province	Highway crossings approved	Highway crossings closed	Construction and operation of branch lines and industrial spurs	Bridges and subways approved	Approval of operation over and under bridges	Highway diversions	Less than standard clearance	Railway connections	Interlocking plants and changes to interlocking plants approved	Operation through interlocking plants	Crossings protected by flashing light signals and bell	Crossings protected by automatics, and flashing light signals and bell	Changes in operating circuits of flashing lights and bells and wigwags	Signal protection at bridges	Automatic block signals	Inspection of railway line for carriage of traffic	Water, gas, oil and sewer pipes under railways	Mining tunnels	Establish sight lines	Diversion of railway line	Pedestrian subway	Location of telephone lines	Exemption from fencing and cattle guards	Abandon operation of railway line	Highway tunnel	Extend railway tunnel	Location plans of oil pipe lines	Total
British Columbia.....	33	6	7	9	14	2	1	3	3	2	2	.....	.....	.....	.....	1	1	1	1	.....	.....	.....	.....	.....	1	1	.....	84
Alberta.....	29	5	11	11	28	1	1	1	1	.....	3	.....	1	.....	1	.....	.....	1	1	.....	.....	.....	11	.....	.....	2	.....	108
Saskatchewan.....	22	19	1	1	125	4	1	.....	4	3	1	1	.....	.....	.....	.....	1	.....	1	.....	.....	41	.....	.....	.....	3	.....	228
Manitoba.....	23	1	2	5	238	2	2	.....	1	4	1	1	.....	.....	1	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	2	.....	287
Ontario.....	53	20	17	18	78	1	13	1	9	3	41	1	7	1	3	2	5	2	1	2	1	17	38	1	.....	.....	.....	335
Quebec.....	50	5	5	5	20	2	6	.....	5	4	13	2	6	1	.....	1	.....	.....	.....	.....	.....	1	4	1	1	.....	.....	132
New Brunswick.....	6	1	.....	.....	1	1	.....	.....	.....	.....	12	.....	1	.....	1	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	24
Nova Scotia.....	4	.....	2	1	.....	.....	4	.....	.....	.....	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18
Prince Edward Island.....	1	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
Newfoundland.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	221	58	45	51	503	13	28	2	23	16	80	5	15	2	6	4	7	3	4	2	1	18	100	2	2	1	7	1,219

APPENDIX "E"

OTTAWA, Ontario,
February 14th, 1950.

P. F. BAILLARGEON, Esq.,
Secretary,
Board of Transport Commissioners,
OTTAWA, Ontario.

DEAR SIR:

1. I submit, for the Board's Forty-Fifth Report, the Annual Report of the Operating Department for the year ended December 31, 1949.

2. The report is divided as follows:

Part I—Operating

Part II—Mechanical

Part III—Inflammable Liquids and Explosives

Part IV—Fire Prevention

3. In order to accomplish the work, hereunder described, it has necessitated the travelling of 494,556 miles by Officers of this Department.

4. During the year 1949 approximately 36,000,000 passengers travelled on Canadian Railways, the passenger train mileage for the year totalling approximately 46,000,000 miles.

5. PART I—OPERATING

Accidents attended by Loss of Life or Personal Injury

STATISTICS

Accidents—

Total accident reports received from railways and investigated.....	3,221
Total persons killed.....	334
Total persons injured.....	3,738

Fatalities—

Passengers.....	4
Employees.....	69
Trespassers and Others (includes fatalities due to Highway Crossing Accidents).....	261
Total.....	334

Injuries—

Passengers.....	620
Employees.....	2,387
Trespassers and Others (includes injuries due to Highway Crossing Accidents).....	731
Total.....	3,738

Highway Crossing Accidents—

Accidents.....	441
Persons killed.....	138
Persons injured.....	589

Detailed statistical data regarding accidents during the year 1949 is given in statements appended hereto which, for ready reference, have been indexed as follows:

Statement No. 1—Passengers, employees and Others killed and injured on railways.

Statement No. 2—Comparative Statement of killed and injured on railways for years 1948 and 1949.

Statement No. 3—Passengers, Employees and Others killed and injured, showing nature of accidents.

Statement No. 4—Character of accidents and number of persons killed and injured on railways.

Statement No. 5—Comparative Statement of classes of accidents for years 1948 and 1949.

Statement No. 6—Comparative totals by railways of killed and injured for years 1948 and 1949.

Statement No. 7—Collisions involving personal injury.

Statement No. 8—Derailments involving personal injury.

Statement No. 9—Comparative Statement showing number of persons killed and injured on railways for ten years, ended December 31, 1949.

Statement No. 10—Trespassers killed and injured, by Provinces and Railways.

Statement No. 11—Showing more prominent accidents on railways for five-year period.

Statement No. 12—Protection provided at highway crossings during 1949.

Statement No. 13—Nature of highway crossing protection completed in each Province during 1949.

Statement No. 14—Highway crossing accidents, killed and injured in each Province during 1949.

Statement No. 15—Description of protection or non-protection in effect at crossings where accidents occurred during 1949.

Statement No. 15A—Crossing accidents separating motor vehicles, or others.

Statement No. 16—Summary of highway crossing accidents for ten-year period ended December 31, 1949.

Statement No. 17—Contributory factors in highway crossing accidents.

Statement No. 18—Locations of highway crossing accidents.

Statement No. 18A—Graphic Chart.

REMARKS

In accordance with Section 285 of The Railway Act, all railway companies under the jurisdiction of the Board are required to report all accidents attended with personal injury.

The number of accidents reported and investigated totalled 3,221 for the year 1949. These accidents involved casualties, of which number 334 persons were killed and 3,738 were injured. This is an increase over the previous year of 288 accidents, a decrease of 65 persons killed and an increase of 274 injured.

Major train accidents (derailments and collisions) on all railways in Canada increased from 69 in 1948 to 72 in 1949, an increase of 3 accidents of this class compared with the previous year.

Included in the total of 3,221 accidents (involving 4,072 casualties) were 187 accidents as a result of which 94 trespassers were killed and 97 injured. Detailed figures regarding accidents involving persons who were trespassing on railway property are shown by railways and provinces in Statement No. 10. This is a decrease of 21 persons killed and an increase of 20 persons injured, as compared with the year 1948, during which year 115 trespassers lost their lives and 77 were injured.

Highway crossing accidents for the year numbered 441, resulting in 138 persons killed and 589 injured. A comparison with the previous year is as follows:

	Accidents	Killed	Injured
1948.....	414	159	566
1949.....	441	138	589
Increase.....	27	...	23
Decrease.....	...	21	...

Of these 441 accidents, 412 involved motor vehicles resulting in 125 deaths and injured 572. The remainder of the accidents, 29, involved horse-drawn vehicles, pedestrians, etc., and resulted in 13 deaths and injuries to 17 persons.

Of the 441 accidents at highway crossings, 249 occurred during the daytime and 192 at night.

Accidents to the number of 135 were caused by auto vehicles running into the sides of trains at crossings, resulting in 17 persons being killed and 203 injured. Of this class of accident 44 occurred during the daytime and 91 at night.

Inspection of Passenger Equipment; Stations; Buildings and Premises

This work includes features of safety, cleanliness, lighting, accommodation, etc. A large number of matters have been brought to the attention of the proper officials with beneficial results.

Inspectors of the Board are likewise constantly reviewing questions of train operation and compliance with the general train operating rules.

6.

PART II—MECHANICAL

STATISTICS

Motive Power—

Number of locomotives.....	5,328
Reports of Hydrostatic Tests, Removal of Lagging and Dome Caps, Testing of Staybolts, Washouts, Boilers and Appurtenances, etc., received.....	61,321

Inspection of Motive Power—

Locomotive Inspections.....	8,173
Locomotives found defective.....	1,445
Defects.....	2,427

Locomotive Boilers—

(Application for extension of time for removal of flues)	
Applications received from railways.....	137
Internal inspections made.....	126
Applications granted.....	125
Application refused.....	1

Stationary Boilers—

Number of stationary boilers.....	1,389
Inspection reports.....	2,750
Inspections made.....	452
Fire protective appliance inspection reports.....	1,769

Safety Appliance and Equipment Inspections—

Freight cars inspected.....	35,300
Freight cars found defective.....	2,661
Defects.....	4,227
Passenger coaches inspected.....	2,785
Passenger coaches found with defects.....	322

Inspection of Freight Cars for Correct Tare Weight—

Number of cars inspected.....	50
Number of cars found overdue for weighing for tare.....	12

Inspection of Passenger cars for Excessive Air Brake Piston Travel—

Number of cars inspected.....	768
Number of cars with excessive Piston Travel.....	46

Inspection of Freight Cars for Excessive Air Brake Piston Travel—

Number of cars inspected.....	16,421
Number of cars with excessive Piston Travel.....	1,214

Detailed statistical data for the year 1949 is given in statements appended hereto and indexed as follows:

Statement No. 19.—Particulars of freight equipment inspected.

Statement No. 20.—Defective safety appliances on freight cars.

Statement No. 21.—Particulars of locomotives inspected.

Statement No. 21A.—Statement of Boiler Explosions and Crown Sheets damaged—year 1949.

REMARKS

Inspection of Safety Appliances and Car Equipment

The work coming within this category is largely carried on under the provisions of Section 298 of The Railway Act and the Board's General Orders Nos. 102, 128, 261, 270, 346, 458, 461 and 515. In this connection reference is made to detailed Statements Nos. 19, 20 and 21. The inspection of freight and passenger cars for excess brake piston travel has received considerable attention resulting in improved condition of cars; progress continues in the matter of maintenance of draft and buffing gear; the question of improved maintenance for various types of tank cars and their appurtenances has been given considerable attention; the construction of new mail and express cars has been followed closely by Inspectors of the Board, and the inspection of freight cars has resulted in the removal from service of a number of cars in deteriorated condition. Considerable inspection has likewise been carried out in connection with train lighting, heating and air-conditioning of passenger equipment.

Inspection of Motive Power

The inspection of locomotive and car equipment entails considerable time and labour, both on the ground and at headquarters, in Ottawa, at which point the work of recording, checking and filing of the numerous reports filed by the Inspectors is carried on, and subsequent correspondence with railway companies involved with a view to having the defects remedied as promptly as possible in the interests of public safety and of employees engaged in train operations. In addition, Inspectors of the Board have been riding locomotives to determine the condition of motive power under actual working conditions.

The breaking of water gauge glasses on locomotives has reached serious proportions and intensive research and study is still being given to this problem by the Technical Officers of the Department.

Locomotive Boiler Extensions of Time

During the year the Board's Mechanical Inspectors made internal examinations of 126 locomotives. One hundred and twenty-four applications were granted the full period of time requested.

Upon examination, it was found that one locomotive was in such condition that the full extension requested could not be authorized, but extension for a shorter period of time was allowed. In one case the condition was such that the extension of time requested could not be properly granted, and as a result was refused.

Under General Order No. 473 (Locomotive Boiler Inspection Order) 61,321 report forms of monthly and annual inspections, tests, etc., were filed by railway companies with the department during the year, covering 5,328 locomotives.

Inspection of Stationary Boilers

This feature is dealt with under General Orders Nos. 330 and 416. Inspections, totalling 452, were made of boilers and appurtenances during the year and reported upon, as well as the conditions of the boilerhouse. Defects on boilers reported were rectified.

Stationary Boiler Reports

Pursuant to General Order No. 330 (the Stationary Boiler Inspection Order) 2,750 report forms of semi-annual and annual inspections were filed during the year covering 1,389 stationary boilers. In addition there were received 1,769 reports of monthly inspections of fire protective appliances on portable boilers on steam shovels, ditching machines and similar equipment under General Order No. 548.

Inspection and Testing of Air Reservoirs, Other Than on Locomotives

Pursuant to General Order Nos. 576 and 714, 4,511 report forms of inspection were filed and checked in compliance with the Regulations covering 4,089 air reservoirs.

Oil Burning Steam Locomotives

The increased availability of fuel oil in Western Canada has resulted in the conversion of a considerable number of locomotives from coal to oil burning.

The following comparative statement covering a three year period will illustrate the increase in the total of oil burning steam locomotives operated by the two major railways:

Canadian National Railways—

At December 31, 1947.....	95
At December 31, 1948.....	98
At December 31, 1949.....	164

Canadian Pacific Railway Company—

At December 31, 1947.....	122
At December 31, 1948.....	130
At December 31, 1949.....	230

Beneficial results are anticipated from this conversion as the result of reduction in forest fire hazards.

The elimination of fire cleaning has resulted in improved operating efficiency to the railway companies, who have eliminated or reduced certain fuelling stops. This provides increased operating availability for this motive power. The C.P.R., are now operating the majority of Transcontinental trains between Winnipeg and Vancouver with oil burning locomotives.

Diesel Electric Locomotives

The economic and operating advantages possible with the use of Diesel electric locomotives has created an evolutionary trend in railway motive power, this being indicated by the new equipment purchased for the United States railways during 1948 by Class I railways, who placed in operation 86 steam locomotives, 4 electric and 1,397 Diesel electric units.

The two major Canadian railways have adopted similar policies in the matter of motive power replacement as indicated by the following tabulation:

	New Steam Locomotives			Previous to 1947	New Diesel Electric			Total
	1947	1948	1949		1947	1948	1949	
C.N.R.....				14	28	12	30	84
C.P.R.....	6	52	6	38	13	19	62	132

The Department has taken the necessary action to ensure that the inspection staff are conversant with the technical aspects involved with this equipment. This has necessitated attendance at Diesel Training Courses in order that the Inspection Staff may be qualified to carry out inspection requirements on Diesel electric motive power.

Smoke Abatement

An Officer of the Board has devoted considerable time to the study of this question. As Chairman of the Montreal Railway Smoke Abatement Committee he has held numerous meetings for the purpose of determining practical means to reduce the emission of railway caused smoke, including extensive discussions particularly directed to the question of lighting and steaming up of locomotives in the various roundhouses.

The actions of the Committee have resulted in the conduct of educational classes and lectures utilizing slides and films. The conversion of coal burning to oil fire stationary boilers has been effected with the use of improved equipment and facilities for the lighting and operation of locomotives.

Impartial observations indicate that considerable improvement has been effected. However, any large concentration of locomotives under steam, inevitably creates considerable cumulative smoke; action will be continued in order that the maximum results may be achieved.

Study has been continued in connection with the abatement of smoke in the City of Toronto. Improvements effected include the application of over-fire jets to locomotives operated in the yard at this point. Similar education programmes have been inaugurated; further action to improve the condition appears necessary and as the result the investigations and studies will be continued.

Buttonhead Crown Bolts

The detailed investigations conducted by the Department with respect to effective means to bring about a reduction in the number of serious boiler explosions frequently attended with fatalities or injuries and extensive property damage, resulted in the issue by the Board of a directive requiring the majority of locomotive boilers to be equipped with buttonhead crown bolts.

It is gratifying to be able to advise that sufficient experience has now been acquired to confirm the views previously expressed, that a material reduction in the number and extent of injuries and damage may be expected, and it is considered that a major technical advance has been achieved. A total of 939 engines have been equipped with buttonhead crown bolts since the directive was issued by the Board.

All-Welded Boilers

In view of the satisfactory results secured by the Canadian Pacific Railway Company with the operation of two locomotives equipped with fusion welded boilers, the company requested the Board's approval covering an additional ten

boilers of similar construction. The specifications and drawings were examined and authority granted, periodic inspection of the boilers under construction and tests were carried out, these being the first all-welded locomotive boilers produced in Canada.

Internal examination of these boilers has been conducted by Inspectors of the Board since they have been placed in service; reports received indicate satisfactory operating results.

7. PART III—INFLAMMABLE LIQUIDS AND EXPLOSIVES

Inflammable Liquids: Handling and Storage on and Adjacent to Railway Property

Under the provisions of General Order No. 716, and Circular No. 241, there were 244 applications received for approval of location and of changes to installations.

These, together with 24 applications in abeyance from the previous year, were investigated and disposed of as follows:

Total applications received.....	244
In abeyance from previous year.....	24
	<hr/> 268
How dealt with:	
Cancelled.....	6
In abeyance.....	34
Approved and Orders issued.....	228
	<hr/> 268

These applications necessitated the examination of over 800 plans and profiles. Inspection on the ground was necessary in many instances.

The 228 applications which were approved covered 2 Marine terminals; 1 refinery, and 225 bulk storage plants, 73 of which were new installations.

Owing to the conversion of many locomotives from coal to oil burners, and the introduction of Diesel motive power many applications were received from the Railway Companies for approval of oil storage facilities for servicing these Units during the latter portion of the year.

Particulars of installations are as follows:

Number of Oil Companies making Installations	Number of Installations 1949	Number of additional Tanks Installed 1949	Total Capacity Additional Storage Gallons (Imp.)
73	228	542	56,341,994

Liquefied Petroleum Gases: Handling and Storage on, or Adjacent to Railway Property

During the year 14 applications were dealt with covering the installation of 16 storage containers, having a total capacity of 316,400 gallons (Imperial).

In addition to the above, one Order issued covering the transfer of service from the Essex Terminal to Canadian National Railways and another Order issued approving pipe line for handling Oxygen and Acetylene.

Inspections of these installations were made, whenever possible.

*Regulations for the Transportation of Explosives and Other Dangerous Articles
By Freight (Railway) and Specifications for Shipping Containers*

General Orders Nos. 722, 727, 728, 730 and 733 were issued during 1949 in connection with the above Regulations.

General Order No. 727 approved Supplement No. 1 to these Regulations. Further revision of the Regulations to provide for the transportation and handling of new dangerous commodities in transit has been undertaken and Supplement No. 2 will be published shortly.

Cylinders for the Handling of Compressed Gases

The development in the manufacture of various types of compressed gas cylinders in Canada has continued as the result of increased use of propane and other commodities involving appropriate types of cylinders.

The difficulties experienced in the procurement of adequate supplies of these cylinders from the United States has created considerable interest in their production by Canadian manufacturers of steel products.

A large number of inquiries have been received. This has necessitated innumerable conferences and discussions with the manufacturers and inspection agencies.

Three Canadian firms were in production during the year manufacturing cylinders to Specifications 4B, 4BA, and 4B-240FLW. One of the companies has, however, discontinued manufacture for economic reasons. In addition a small cylinder to Specification 3-E for carbon dioxide is now being produced in Canada.

It is anticipated that increased developments will occur including the probable entry into this field of additional manufacturers regarding which several proposals have been studied and reviewed. These have necessitated certain amendments in procedures to ensure that all questions of safety in manufacture and testing of these cylinders are complied with.

8. PART IV—FIRE PREVENTION

Inspection

Organization—Under the co-operative arrangements inaugurated in 1912 with the various Dominion and Provincial Forest Services, 238 officers and men of such services were under appointment as Inspectors for the Board, distributed as follows:—

Nova Scotia, Department of Lands and Forests.....	21
New Brunswick, Department of Lands and Mines, Forest Service.....	11
Quebec, Department of Lands and Forests, Forest Protection Service.....	31
Ontario, Department of Lands and Forests, Division of Forest Protection.....	76
Manitoba, Department of Mines and Natural Resources, Forest Service.....	6
Saskatchewan, Department of Natural Resources and Industrial Development, Office of Director of Forests.....	4
Saskatchewan, Department of Natural Resources and Industrial Development, Office of Director of Forests, Fire Guard Inspection, Prairie Lines.....	2
Alberta, Department of Lands and Mines, Office of Director of Forestry.....	11
British Columbia, Department of Lands, Forest Branch.....	72
Dominion of Canada, Department of Mines and Resources, National Parks Bureau	3
Yukon Territory, Royal Canadian Mounted Police.....	1

Of the above, eight officers were given appointments as Inspectors of Fire Protective Appliances on locomotives, distributed as follows:

Nova Scotia, Department of Lands and Forests.....	2
New Brunswick, Department of Lands and Mines, Forest Service.....	1
Quebec, Department of Lands and Forests, Forest Protection Service.....	1
British Columbia, Department of Lands, Forest Branch.....	4

Since the inclusion of Newfoundland into Confederation, the question of fire protection in that Province has been the subject of several consultations with the Railway and Provincial authorities, as well as with Representatives of the Industrial concerns. Satisfactory arrangements have been concluded and Fire Prevention, insofar as railways are concerned, is well advanced and upon a satisfactory basis for the present.

During the fire season of 1949, these officers inspected the fire protective appliances of 1,723 locomotives. In addition, fire protective appliances were inspected on 3,266 locomotives by the Board's permanent staff, making a combined total of 4,989 locomotives inspected in connection with railway fire prevention.

Fire Hazard and Weather Conditions

NEWFOUNDLAND.—The fire season of 1949, generally speaking, was very dry and the hazard high. The months of June, July and August were the highest in all sections. During this period the total rainfall reported at Gander was 11.43 inches, and at Torbay 8.35 inches. It is noteworthy that most of the rainfall recorded at Torbay fell on holidays and week-ends when travel was greatest, and this accounted for the small number of fires occurring in the Eastern section.

NOVA SCOTIA.—The weather during the past fire season resulted in average conditions; however, certain localities suffered some very dry periods with low precipitation. In other parts of the province, precipitation was such that although not heavy, the distribution and occurrence aided greatly in the prevention of large fires. During this period, there were 48 days of precipitation, and 28 days of precipitation insufficient to measure. The months of May and June were below normal precipitation, while the other months were of normal amounts.

NEW BRUNSWICK.—Spring came in with seasonable weather which gradually built up a high hazard by June 18th. At this time it became necessary to close the forest to travel as the central part of the province became very dry, although the weather conditions in the Northern portion of the province were satisfactory. A few cloudy days with light rain followed until the forests were opened again to travel on June 22nd. Showers and cooler weather followed with some rain.

July and August were hot, humid months with some scattered showers, but September came in with heavy rain followed by warm sunny days and more rain on the 14th and at the end of the month.

The first few days of October were fine followed by rain and colder weather with alternate sunny and cloudy days becoming colder with frost as the month advanced. The third week was sunny followed by a rainy period with a few fine days at the end of the month.

QUEBEC.—Meteorological records show that rainfalls were abundant during 1949 with low precipitation during the months of May and July being offset by above average precipitation during June, August and September.

Generally speaking, the month of May was fairly dry, particularly in the Western and Southern portion of the province; this, however, was followed by abundant rainfall in June except in the Montreal region.

Less than average rainfall in July built up an above normal fire hazard, particularly in the Montreal Region where bad fires occurred in August.

On the whole, precipitation during the Fall months was above average across the province, particularly in the Western portion of the province and in the St. Maurice, Lake St. John and Montreal districts.

ONTARIO. A review of the 1949 fire season shows that while there were brief periods of high hazard in various sections, the season was fairly normal.

Periods of high hazard occurred in early May in the Western and mid-Western regions, in early June in the Northern and Central Regions, across the province in early July, and the most severe hazard between August 8th and 30th in the Central and Southeastern Regions.

Sixty-two fires were being fought on May 2nd and one hundred and seven on August 19th. Sixty-eight lightning fires occurred during the week-end of August 30th.

No serious fire hazard conditions developed in the Fall.

MANITOBA.—The drought which existed over the forested regions of Manitoba during 1948 persisted, and a two weeks early break-up and a record dry April quickly raised fire hazard to extreme proportions over practically the entire province by the end of April. Cool, wetter weather in May relieved this situation, but dry conditions continued East of Lake Winnipeg in the Interlake region and Swan River Valley until heavy rain came in July.

Throughout the balance of the summer, fire hazard built up repeatedly, but timely rains kept the situation at normal. One of the wettest Falls on record kept hazard at a low level. At freeze-up moisture conditions were excellent, except between Swan River and Mafeking and in a region between Carberry and Brandon as far North as Moosehorn in the Interlake Region.

SASKATCHEWAN.—This province experienced a bad fire season due largely to a very dry spring and a low moisture carry over from the previous Fall. During the hot weather in mid-Summer, however, rainfall was average which helped to keep fire hazard to a controllable degree. A total of 12.28 inches of rainfall occurred during the months from April to October, inclusive.

No large forest fires were attributable to railway causes.

ALBERTA NORTHERN AND CENTRAL DISTRICTS.—April, May and June were very hot and dry with high winds and practically no rainfall. Some general rains fell in July, but this was below normal for the month. The rainfall for August, September and October was also below normal with above average temperatures. An above normal fire hazard was experienced throughout the season.

ALBERTA—SOUTHERN DISTRICT.—The latter part of April and first part of May were dry, but general rains fell around the 15th of May and from then on the weather was generally cool with ample precipitation, and the fire hazard was normal or below normal throughout.

BRITISH COLUMBIA. The 1949 fire season had all the indications of a serious and costly year, for the South half of the province at least. The early Spring was exceptionally dry, but rains decreased the hazard in time to prevent serious flash fires. Similarly, during the Summer, the hazard build-up was relieved several times by rain. This was particularly fortunate as precipitation during the fire season for the most of the province was almost 50% less than last year.

In the Vancouver Forest District an unusual pre-fire season situation existed as a result of a freak condition occurring early in the previous winter. Prior to the occurrence of snowfall in December 1948, forest soils were sealed off by heavy frost with the result that considerably less than average soil moisture penetration occurred. This caused early evaporation of moisture content of the forest soils and left the stage set for an extremely bad build-up, but the rains and showers of the last half of May saved the situation. The months of June and July, up to July 16th, although not particularly hazardous, saw a gradual build-up in fire risk which was relieved somewhat in the period of July 17th to 31st by higher humidities and light rainfall. The month of August was about average

until the 27th when a serious hazard build-up commenced extending to September 13th. The situation was again relieved with rains and showers in the last half of September.

In the Prince Rupert Forest District, generally speaking, the rainfall was slightly less than in other years and was spread over a greater number of days, thus accounting for a very favourable fire season in the interior of that District, as well as in the Coastal region.

In the Fort George District, the weather was generally favourable from the forest protection point of view, and is reflected in the reduced acreage burned and reduced damage figures, although the total number of fires (158) was slightly higher than the 10 year average. West of the Rockies, from May 9th to 16th, a flurry of fires occurred in open areas, but did not run into green timber. The next hazard period started on July 8th, and although this was soon alleviated by showers on July 16th, it was bad while it lasted. Numerous lightning strikes occurred, often in inaccessible places during this period. From July 16th on, wetter weather resulted in there being no serious outbreaks. East of the Rockies by May 1st the hazard was already high, particularly in the Fort St. John area. In this territory the situation was eased considerably by scattered showers on May 16th, and after that date, due to lower humidities and showers or rain, the Peace River District caused no serious trouble.

In the Kamloops Forest District the weather was unusual in several respects. The early Spring was exceptionally dry, but rains decreased the hazard shortly after conditions were right for grass fires. In fact the Cariboo and Chilcote portions were wet all summer and it was almost Fall before the grass turned brown. The central portion of the Kamloops District was quite wet with a few dry spells in September. The Okanagan on the other hand had particularly dry weather all Summer and Fall.

In the Nelson Forest District the season was considerably drier than last year—there being only about 40% of the amount of rain compared to last year. On several occasions the hazard built up to a critical point, but was reduced by timely rains. The most prolonged and intense fire hazard period occurred in mid-April. Due to the reduced rainfall there was a very noticeable lowering in the general water level with many creeks, springs and wells drying up that had not been dry for years. Moderate lightning activity was experienced as usual in the Nelson Forest District, but again timely rains occurred and no particular difficulty was experienced in controlling the resulting fires.

Railway Fire Patrols

The Fire Patrol Requirements, under the terms of paragraph 29 of General Order No. 548, were addressed to all the railways concerned.

Statistics showing railway forested mileages upon which patrols are prescribed follow:

Total miles of railway classified as being in forested territory for fire protection purposes.....	14,646
Special section patrols prescribed on.....	6,339
Special velocipede patrols prescribed on.....	207
Special power speeder patrols prescribed on.....	1,846
Other type special patrol prescribed on.....	65
Total miles on which special patrol prescribed.....	8,457
Total special patrolmen (estimated).....	1,080
Average number of miles of track per patrolman.....	7.83
Total miles in forested territory on which no special patrol required, detection, reporting and extinguishing of fires being a part of the regular duties of the section forces and other employees.....	6,189

It should be noted here that the considerable mileage increase over last year in the above statistics is accounted for chiefly by the inclusion of the Province of Newfoundland, and the addition of the Hudson Bay Railway in Manitoba to the Canadian National Railways System.

Fire Statistics

Within the 14,646 railway mileage under the Board's jurisdiction classified as forested territory, 633 fires occurred during the fire season of 1949. 504 fires or 79.62 percent of the total are attributed to railway causes, 100 fires or 15.8 percent to other known causes and 29 or 4.58 percent were of unknown origin. These fires burned a total of 8,345 acres with forest and other property loss valued at \$11,974.00. Of the area 4,023 acres were young forest growth, 662 acres merchantable timber, 580 acres slash or old burn not restocking and 3,080 acres of other classes of lands.

In addition to the foregoing, there were reported 150 fires originating and burning in ties in the track which did not spread or cause damage other than to track ties.

Of the 504 fires attributed to railway causes, 467 were charged to locomotives and 37 to employees of the railways. The 467 fires attributed to locomotives comprise approximately 93 percent of the total of railway caused fires, burned approximately 74 percent of the total area, and caused 59 percent of the estimated total monetary loss of forest and other property destroyed by railway caused fires.

The 37 fires attributed to employees comprise approximately 7 percent of the total number of railway caused fires, burned approximately 26 percent of the total area, and caused 41 percent of the estimated total monetary loss of forest and other property destroyed by railway caused fires.

100 fires originating within 300 feet of the track in forested territory are attributed to known causes other than railway. Of these 80 are charged to campers and travellers, 3 to settlers and 17 to other known causes. 56 of these fires were incipient, 38 burned $\frac{1}{4}$ acre to ten acres each, and 6 burned more than 10 acres. These fires burned 361 acres of young forest growth, 3 acres of merchantable timber, 67 acres of slash or old burn not restocking, and 219 acres of other classes of lands, with a total damage to forest and other property estimated at \$1,828.00.

29 fires of unknown origin originated within 300 feet of track, burned a total of 1,512 acres with forest and other property loss valued at \$3,081.00.

Forest valuations given above are based on stumpage values.

Detailed statistics are shown in statements appended hereto and indexed as follows:

Statement No. 22.—Summary of fires in forest sections within 300 feet of railway.

Statement No. 23.—Summary of fires of railway origin in forest sections.

Statement No. 24.—Summary by provinces of fires reported.

Right-of-Way Clearing

During the 1949 fire season, numerous reports covering right-of-way conditions were received from the Board's District Fire Inspectors, and these indicate that considerable progress has been made towards the removal of inflammable debris from the rights-of-way, and in reducing fire hazards.

Fireguard Requirements

In accordance with the Requirements, 4,562.70 miles of fireguards were constructed or maintained in uncultivated lands (fenced grazing and wild lands) in non-forested sections of the Prairie Provinces.

FIREGUARDS, 1949

Railway	Mileage both sides of track to be accounted for exclusive of approved exemptions	Fireguard mileage constructed or maintained during year	Percentage completion
Canadian Pacific.....	3,519.40	2,780.90	79.02
Canadian National.....	3,041.00	1,762.30	57.95
Northern Alberta.....	23.90	19.50	81.59
	6,584.30	4,562.70	69.29

Respectfully submitted,

C. C. STIBBARD,

Director of Operation.

TRANSPORT COMMISSIONERS OF CANADA

STATEMENT No. 1.—PASSENGERS, EMPLOYEES AND OTHERS KILLED AND INJURED ON RAILWAYS UNDER THE BOARD'S JURISDICTION FOR YEAR ENDED DECEMBER 31, 1949

Name of Railway	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Canadian National.....	1	303	28	1,335	123	356	1,687	152	1,994
Canadian Pacific.....	3	287	39	966	112	270	1,367	154	1,523
Algoma Central & Hudson Bay.....			1	5	1	4	8	2	9
British Columbia Electric.....		13			3	7	7	3	20
Central Vermont.....				1	1	1	3	1	2
Chesapeake & Ohio.....				3		16	10		19
Dominion Atlantic.....			1	13		4	13	1	17
Essex Terminal.....						3	1		3
Esquimalt & Nanaimo.....				1		4	4		5
Grand River.....				2		8	6		10
Great Northern.....				6		1	7		7
Lake Erie & Northern.....				1	2	3	5	2	4
London & Port Stanley.....					1	1	1	1	1
Michigan Central.....				1	2	7	8	2	8
Midland Railway of Manitoba.....						3	2		3
Montreal & Southern Counties.....						4	3		4
Napierville Junction.....		7		2		3	2		12
National Harbour Board.....					1	1	2	1	1
New York Central.....		4		5		1	10		10
Niagara St. Catharines & Toronto.....						2	1		2
Nipissing Central.....					5	2	3	5	2
Northern Alberta.....		5		39	1	7	43	1	51
Oshawa.....						1	1		1
Quebec Central.....		1				4	3		5
Quebec Railway Light & Power.....						2	1		2
Sydney & Louisburg.....				2		2	4		4
Temiscouata.....						1	1		1
Toronto, Hamilton & Buffalo.....				5	9	13	18	9	18
Totals.....	4	620	69	2,387	261	731	3,221	334	3,738

STATEMENT No. 2.—COMPARATIVE STATEMENT OF KILLED AND INJURED FOR
YEARS ENDED DECEMBER 31, 1948 AND DECEMBER 31, 1949

	Passengers		Employees		Others		Acci- dents	Total	
	Killed	Injured	Killed	Injured	Killed	Injured		Killed	Injured
1949.....	4	620	69	2,387	261	731	3,221	334	3,738
1948.....	16	553	92	2,188	291	723	2,933	399	3,464
Increase.....		67		199		8	288		274
Decrease.....	12		23		30			65	

STATEMENT No. 3.—PASSENGERS, EMPLOYEES AND OTHERS KILLED AND INJURED,
AND NATURE OF ACCIDENTS, FOR YEAR ENDED DECEMBER 31, 1949

Character of Accident	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Derailment.....		57	4	42		1	31	4	100
Collision head-on.....		109	1	54		3	20	1	166
Collision rear-end.....		29	1	30	1	1	13	2	60
Collision in yard.....		14	1	9			6	1	23
Collision with cars account open switch.....				4			2		4
Equipment struck in yard during switching or trans- fer movement.....				14			12		14
Sideswipe.....	1	76	5	31			19	6	107
Public highway crossing protected by gates.....					2	9	10	2	9
Public highway crossing protected by automatic highway traffic signals.....						2	2		2
Public highway crossing protected by bell.....					2	4	3	2	4
Public highway crossing protected by bell and wigwag.....				3	30	70	59	30	73
Public highway crossing protected by flashing light signals and bells.....			1	8	2	18	19	3	26
Public highway crossing protected by watchman.....					1	6	6	1	6
Public highway crossing unprotected.....		2		44	100	423	342	100	469
Private crossing.....			1	10	22	42	46	23	52
Trespassing.....					94	97	187	94	97
Working on or about engine				325			318		325
Miscellaneous.....		19		306	2	18	338	2	343
Adjusting couplers, coup- ling and uncoupling.....			3	69			72	3	69
Run down by engine or car between stations.....			6	1		1	8	6	2
Hand car—Accidents caused by hand car, motor or velocipede.....			3	128	2	8	108	5	136
Hand car, motor car, vel- ocipede struck by train.....			3	35		1	31	3	36
Crawling between cars, over couplers.....				6			6		6
Passing between cars, be- tween couplers.....			2	10	1	1	14	3	11
Struck by engine or cars on adjoining track.....			2	16			18	2	16
Struck by switch stand, water spout, mail crane, or other projection.....			1	20		1	22	1	21
Crushed between cars and buildings, lumber piles.....				10			10		10
Explosion of locomotive boiler.....			1				1	1	
Getting on and off passen- ger train.....		78					76		78
Injured when taking coal or water.....				33			33		33
Rock slides, or other ob- structions on track.....		2		11			6		13
Rough coupling.....		9		96		9	100		114
Riding on pilot or foot- board of engine.....			1	33			34	1	33
Obstructions, overhead and on ground.....				10			10		10
Falling off top of car.....			3	27		1	31	3	28
Application and handling of air brakes, stopping of trains and adjusting slack	1	42	2	129		4	145	3	175
Employees getting off train in motion.....			1	215			216	1	21
Employees boarding train in motion.....			1	112			113	1	112

STATEMENT No. 3.—PASSENGERS, EMPLOYEES AND OTHERS KILLED AND INJURED,
AND NATURE OF ACCIDENTS, FOR YEAR ENDED DECEMBER 31, 1949 (conc.)

Character of Accident	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Slipped on ice.....		1		48			49		49
Doors closing and other minor accidents in bag- gage cars and coaches..		156		99		2	256		257
Run down by engine or cars at stations or in yards.....			18	48		3	65	18	51
Caught in frog, guard rail or switch rod.....				1			1		1
Caught by engine or car while throwing switch..				1			1		1
Falling off side and end ladders of cars.....			1	80			81	1	80
While working hand brake				97			97		97
Handling freight and bag- gage.....				41			41		41
Loading and unloading O.C.S., material.....			1	38			39	1	38
Work train equipment, coal chutes and water tanks.....			3	16			18	3	16
Cars moved while being loaded or unloaded.....					1	3	3	1	3
Carmen working on or under cars on running track when moved.....				3			3		3
Chaining and unchaining cars.....				1			1		1
Coupling and uncoupling hose.....				20			20		20
Turning angle-cock.....				13			13		13
Coach window falling.....		5					5		5
Loads shifting in transit or switching.....				8			8		8
Defective bridges.....		10	1	6		2	1	1	18
Falling or jumping off passenger train between stations.....	2	7	1	1	1		12	4	8
Cars running away; not under control.....		4	1	16		1	12	1	21
Deraiment of equipment in yard tracks (indi- vidual).....				5			4		5
Caught between running boards.....				4			4		4
Totals.....	4	620	69	2,387	261	731	3,221	334	3,738

STATEMENT No. 4. CHARACTER OF ACCIDENTS AND NUMBER OF PERSONS KILLED AND INJURED ON RAILWAYS
FOR YEAR ENDED DECEMBER 31, 1949

	C.N.R.			C.P.R.			Miscellaneous Railways			Total	
	Acci- dents	Killed	Injured	Acci- dents	Killed	Injured	Acci- dents	Killed	Injured	Killed	Injured
Derailment.....	20	1	51	6	3	41	5	.....	8	31	4
Collision head-on.....	16	1	100	2	.....	2	2	.....	4	20	1
Collision rear-end.....	6	.....	37	5	2	10	2	.....	13	13	2
Collision in yard.....	5	.....	23	1	1	.....	.....	.....	.....	6	1
Collision with cars account open switch.....	1	.....	3	1	.....	1	.....	.....	.....	2	.....
Equipment struck in yard during switching or transfer movement.....	8	.....	10	4	.....	4	.....	.....	.....	12	14
Sideswipe.....	13	1	24	6	5	83	.....	.....	.....	19	6
Public highway crossing protected by gates.....	6	2	5	4	.....	4	.....	.....	.....	10	107
Public highway crossing protected by automatic highway traffic signals.....	1	.....	1	1	.....	1	.....	.....	.....	2	2
Public highway crossing protected by bell.....	3	2	4	.....	.....	.....	.....	.....	.....	3	4
Public highway crossing protected by bell and wigwag.....	28	9	41	19	13	17	12	8	15	59	73
Public highway crossing protected by flashing light signals and bells.....	8	2	10	8	1	11	3	.....	5	19	3
Public highway crossing protected by watchman.....	4	1	4	2	.....	2	.....	.....	.....	6	6
Public highway crossing unprotected.....	163	47	222	136	46	177	43	7	70	342	469
Private Crossing.....	21	8	24	20	12	24	5	3	4	46	52
Trespassing.....	101	47	56	74	40	35	12	7	6	187	97
Working on or about engine.....	197	.....	202	109	.....	110	12	13	13	318	325
Miscellaneous.....	175	2	175	148	.....	152	15	.....	16	338	343
Adjusting couplers, coupling and uncoupling.....	35	1	34	34	2	32	3	.....	3	72	69
Run down by engine or car between stations.....	3	3	.....	5	3	2	.....	.....	8	8	2
Hand car, Accidents caused by hand car, motor or velocipede.....	71	2	93	32	1	35	5	2	8	108	136
Hand car, motor car, velocipede struck by train.....	23	3	27	7	.....	7	1	.....	2	21	35
Crawling between cars, over couplers.....	3	.....	3	3	.....	3	.....	.....	.....	6	6
Passing between cars, between couplers.....	10	3	7	3	.....	3	1	.....	1	14	11
Struck by engine or cars on adjoining track.....	8	1	7	9	1	8	1	.....	1	18	16
Struck by switch stand, water spout, mail crane, or other projection.....	8	1	7	13	.....	13	1	.....	1	22	21
Crushed between cars and buildings, lumber piles.....	6	.....	6	4	.....	4	.....	.....	.....	10	10
Explosion of locomotive boiler.....	.....	.....	.....	1	1	.....	.....	.....	.....	1	.....
Getting on and off passenger train.....	35	.....	36	41	.....	42	.....	.....	.....	76	78
Injured when taking coal or water.....	12	.....	12	19	.....	19	2	.....	2	33	33
Rock slides, or other obstructions on track.....	3	.....	9	2	.....	3	1	.....	1	6	13
Rough coupling.....	49	.....	57	48	.....	51	3	.....	3	100	114

Riding on pilot or footboard of engine.....	22	1	21	10	.....	10	2	.....	2	34	1	33
Obstructions, overhead and on ground.....	6	.....	6	3	.....	3	1	.....	.....	10	.....	10
Falling off top of car.....	11	1	10	17	2	.....	3	.....	3	31	.....	28
Application and handling of air brakes, stopping of trains and adjusting slack.....	63	.....	67	78	3	.....	4	.....	12	145	3	175
Employees getting off train in motion.....	128	.....	127	86	.....	.....	2	.....	2	216	1	215
Employees boarding train in motion.....	66	1	65	46	.....	.....	1	.....	1	113	1	112
Slipped on ice.....	22	.....	22	23	.....	.....	4	.....	4	49	.....	49
Doors closed and other minor accidents in baggage cars and coaches.....	136	.....	136	112	.....	.....	8	.....	8	256	.....	257
Run down by engine or cars at stations or in yards.....	30	5	26	34	12	.....	1	.....	.....	65	18	51
Caught in frog, guard rail or switch rod.....	1	.....	1	.....	.....	.....	.....	.....	.....	1	.....	1
Falling off side and end ladders of cars.....	31	.....	31	48	1	.....	.....	.....	.....	1	.....	1
While working hand brake.....	41	.....	41	51	.....	.....	2	.....	2	81	1	80
Handling freight and baggage.....	22	.....	22	18	.....	.....	5	.....	5	97	.....	97
Loading and unloading O. & N. material.....	10	.....	10	28	1	.....	1	.....	1	41	.....	41
Work train equipment, coal chutes and water tanks.....	13	.....	11	5	.....	.....	5	.....	1	39	.....	38
Cars moved while being loaded or unloaded.....	2	1	2	1	.....	.....	1	.....	.....	18	3	16
Carmen working on or under cars on running trucks when moved.....	2	.....	2	1	.....	.....	.....	.....	.....	3	1	3
Chaining and unchaining cars.....	1	.....	1	.....	.....	.....	.....	.....	.....	3	.....	3
Coupling and uncoupling hose.....	11	.....	11	9	.....	.....	.....	.....	.....	1	.....	1
Turning angle-cock.....	6	.....	6	6	.....	.....	1	.....	.....	20	.....	20
Coach window falling.....	3	.....	3	1	.....	.....	1	.....	1	13	.....	13
Loads shifting in transit or switching.....	2	.....	2	5	.....	.....	1	.....	1	5	.....	5
Defective bridges.....	.....	.....	.....	18	.....	.....	.....	.....	.....	8	.....	8
Falling or jumping off passenger train between stations.....	7	2	5	5	2	.....	.....	.....	.....	1	1	18
Cars running away; not under control.....	6	.....	12	6	1	.....	.....	.....	.....	12	4	8
Deraiment of equipment in yard tracks (individual).....	3	.....	4	1	.....	.....	.....	.....	.....	12	1	21
Caught between running boards.....	.....	.....	.....	4	.....	.....	.....	.....	.....	4	.....	5
Totals.....	1,687	152	1,994	1,367	154	1,523	167	28	221	3,221	334	3,738

STATEMENT No. 5.—COMPARATIVE STATEMENT IN TOTALS OF KILLED AND INJURED, BY CLASS OF ACCIDENT,
FOR YEARS ENDED DECEMBER 31, 1948, AND DECEMBER 31, 1949

	1948			1949			Increase			Decrease		
	Acci- dents	Killed	Injured	Acci- dents	Killed	Injured	Acci- dents	Killed	Injured	Acci- dents	Killed	Injured
Derailment.....	21	2	46	31	4	100	10	2	54	.....	7	.....
Collision head-on.....	14	8	106	20	1	166	6	.....	60	.....	10	128
Collision rear-end.....	20	12	188	13	2	60	.....	.....	.....	7	.....	.....
Collision in yard.....	9	.....	41	6	1	23	.....	1	.....	3	.....	18
Collision with cars account open switch.....	5	.....	39	2	.....	4	.....	.....	.....	3	.....	35
Equipment struck in yard during switching or transfer movement.....	14	.....	23	12	.....	14	.....	.....	.....	2	.....	9
Sideswipe.....	11	1	19	19	6	107	8	5	88	.....	.....	.....
Public highway crossing protected by gates.....	8	3	7	10	2	9	2	.....	.....	2	1	.....
Public highway crossing protected by automatic highway traffic signals.....	1	.....	1	3	.....	2	1	.....	1	.....	.....	.....
Public highway crossing protected by bell and wigwag.....	6	2	4	3	.....	4	.....	.....	.....	3	.....	.....
Public highway crossing protected by flashing light signals and bell.....	40	23	54	59	30	73	19	7	19	.....	.....	.....
Public highway crossing protected by watchman.....	10	3	8	19	3	26	9	.....	18	.....	.....	1
Public highway crossing unprotected.....	7	1	7	6	1	6	.....	.....	.....	1	.....	16
Private crossing.....	342	127	485	342	100	469	.....	.....	.....	.....	27	6
Trespassing.....	185	115	58	46	23	52	12	9	.....	.....	21	.....
Working on or about engine.....	256	2	77	187	94	97	2	.....	20	.....	.....	.....
Miscellaneous.....	243	5	267	318	.....	325	62	.....	58	.....	3	.....
Adjusting couplers, coupling and uncoupling.....	72	5	245	338	2	343	95	.....	98	.....	2	.....
Run down by engine or car between stations.....	5	.....	67	72	3	69	.....	3	.....	.....	.....	.....
Hand-car, accidents caused by hand car, motor or velocipede.....	5	3	2	8	6	2	.....	.....	.....	.....	.....	.....
Hand car, motor car, velocipede struck by train.....	109	8	175	108	5	136	.....	.....	.....	1	3	39
Crawling between cars, over couplers.....	27	7	24	31	3	36	4	.....	12	.....	4	.....
Passing between cars, between couplers.....	4	.....	4	6	.....	6	2	.....	2	.....	.....	.....
Struck by engine or cars on adjoining track.....	7	1	6	14	3	11	7	.....	5	.....	.....	7
Struck by switch stand, water spout, mail crane, or other projection.....	23	1	23	18	2	16	.....	1	.....	.....	.....	.....
Crushed between cars and buildings, lumber piles.....	20	.....	20	22	1	21	2	1	1	.....	.....	.....
Explosion of locomotive boiler.....	8	.....	8	10	.....	10	2	.....	2	.....	.....	.....
Getting on and off passenger train.....	69	3	67	76	1	78	7	1	11	.....	3	.....
Injured when taking coal or water.....	23	.....	23	33	33	33	10	.....	10	.....	.....	.....
Rock slides, or other obstructions on track.....	7	5	13	6	.....	13	.....	.....	.....	1	5	.....
Rough coupling.....	93	.....	106	100	.....	114	7	.....	8	.....	.....	.....
Riding on pilot or footboard of engine.....	50	4	48	34	1	33	.....	.....	.....	16	3	15

	8	10	10	2	2	2	2	2	106	952
Obstructions, overhead and on ground.....	31	30	31	28	2	2	4	..	..	..
Falling off top of car.	4	..	..	..	..	..	..	..	..	..
Falling between cars .....	..	..	..	..	..	..	..	..	..	..
Application and handling of air brakes, stopping of trains and adjusting slack.....	147	175	145	3	..	3	..	..	..	..
Employees getting off train in motion.....	210	210	216	1	..	..	..	..	..	..
Employees boarding train in motion.....	87	85	113	1	..	..	..	..	..	..
Slipped on ice.....	25	25	49	..	..	..	..	..	..	..
Doors closing and other minor accidents in baggage cars and coaches.....	257	258	256	..	..	..	..	..	..	..
Run down by engine or cars at stations or in yards....	73	50	65	18	..	..	..	..	..	..
Cought in frog, guard rail or switch rod	2	2	1	..	..	..	..	..	..	..
Cought by engine or ear while throwing switch... Falling off side and end ladders of cars.....	113	113	81	1	..	..	..	..	..	..
While working hand brake	64	64	97	..	..	..	..	..	..	..
Handling freight and baggage.....	25	25	41	..	..	..	..	..	..	..
Loading and unloading O.C.S. material.....	34	34	39	1	..	..	..	..	..	..
Work train equipment, coal chutes and water tanks. Cars moved while being loaded or unloaded.....	22	2	18	3	..	..	..	..	..	..
Garnen working on or under cars on running track when moved.....	1	11	3	1	..	..	..	..	..	..
Chaining and unchaining cars.....	3	2	3	..	..	..	..	..	..	..
Coupling and uncoupling hose.....	15	15	20	..	..	..	..	..	..	..
Turning angle-cock	5	4	13	8	..	..	..	..	..	..
Couch window falling.....	9	9	5	..	..	..	..	..	..	..
Lights shifting in transit or switching.....	9	9	8	..	..	..	..	..	..	..
Falling or jumping off passenger train between stations.. Detective bridges.....	14	4	12	4	..	..	..	..	..	..
Cars running away; not under control.....	14	4	12	1	..	..	..	..	..	..
Washout.....	5	4	9	..	..	..	..	..	..	..
Individual deriliment of equipment in yard tracks.....	9	9	4	..	..	..	..	..	..	..
Cought between running boards.....	3	3	4	..	..	..	..	..	..	..
Totals.....	2,933	3,464	3,221	334	401	41	626	113	106	352

	—	Accidents	Killed	Injured
1949.....		3,221	334	3,738
1948.....		2,933	399	3,464
Increase.....		288		274
Decrease.....			65	

TRANSPORT COMMISSIONERS OF CANADA

STATEMENT No. 6. COMPARATIVE STATEMENT IN TOTALS OF KILLED AND INJURED
FOR YEARS ENDED DECEMBER 31, 1948, AND DECEMBER 31, 1949

Railway	1948		1949		Increase		Decrease	
	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
Canadian National.....	222	1,944	152	1,994		50	70	
Canadian Pacific.....	143	1,304	154	1,523	11	219		
Algoma Central and Hudson Bay.....	3	5	2	9		4	1	
British Columbia Electric.....	2	17	3	20	1	3		
Central Vermont.....		4	1	2	1			2
Chesapeake and Ohio.....	1	4		19		15	1	
Dominion Atlantic.....	1	10	1	17		7		
Esquimalt and Nanaimo.....	2	5		5			2	
Essex Terminal.....				3		3		
Grand River.....		8		10		2		
Great Northern.....		16		7				9
Lake Erie & Northern.....		6	2	4	2			2
London and Port Stanley.....			1	1	1			
Michigan Central.....	9	6	2	8		2	7	
Midland Railway of Manitoba.....		1		3		2		
Montreal and Southern Counties....	4	7		4			4	3
Napierville Junction.....		5		12		7		
National Harbour Board.....			1	1	1	1		
New York Central.....		15		10				5
Niagara, St. Catharines and Tor- onto.....	4	25		2			4	23
Nipissing Central.....			5	2	5	2		
Northern Alberta.....	3	55	1	51			2	4
Oshawa.....				1		1		
Quebec Central.....	1	5		5			1	
Quebec Railway Light and Power.....	1	2		2		2		
Sydney and Louisburg.....		3		4		2		
Temiscouata.....	1	3		1			1	2
Toronto, Hamilton and Buffalo....	2	15	9	18	7	3		1
Toronto Terminals.....		1						1
White Pass and Yukon.....								
Totals.....	399	3,464	334	3,738	29	326	94	52

	Accidents	Killed	Injured
1949.....	3,221	334	3,738
1948.....	2,933	399	3,464
Increase.....	288		574
Decrease.....		65	

Investigation File	Date	Railway	Place	Province	Killed	Injured	Remarks
48255	Jan. 5	C.N.R.	Petit Metis, Matapedia Sub., Mileage 96.	Que.	—	71	Collision head-on.
48390	Jan. 8	C.N.R.	Uneas, Vining Subdivision.	Alta.	—	8	Collision head-on.
48908	Jan. 27	C.N.R.	Semeter, Yellowknife Sub., Mileage 138.	Que.	—	1	Collision in yard.
48582	Feb. 6	C.N.R.	Cornwall, Ontario Sub., Mileage 67-64.	Ont.	—	18	Collision in yard.
48647	Feb. 5	C.N.R.	Chimnap Subdivision, Mileage 67-64.	N.B.	—	1	Collision rear-end.
48736	Feb. 15	C.N.R.	Edmonton, North of 121st St., Edmonton Terminal Sub.	Alta.	—	1	Collision in yard.
48690	Feb. 6	C.N.R.	Pembroke, P.C. 300' west of interchange track switch.	Que.	—	1	Collision head-on.
48710	Mar. 7	C.N.R.	Fowler, Allanwater Subdivision.	Ont.	—	2	Collision rear-end.
48803	Mar. 14	C.N.R.	Melfort, Tisdale Subdivision.	Ont.	—	4	Collision head-on.
48724	Mar. 17	C.N.R.	McLaughlin, Grand Falls Subdivision.	Sask.	—	1	Collision in yard.
48843	Mar. 23	C.N.R.	Woodstock, Dundas Sub., Mileage 49-56.	N.B.	—	3	Collision account of open switch.
48878	Apr. 7	C.N.R.	Between Banning and Flanders, Fort Frances Subdivision, Mileage 20.	Ont.	—	4	Collision head-on.
48906	Apr. 12	C.N.R.	Ste. Helene, Montmagny Subdivision.	Ont.	—	7	Collision rear-end.
49288	May 6	C.N.R.	Linton, Batiscan Subdivision, Mileage 78-3.	Que.	—	3	Collision head-on.
49256	June 9	C.N.R.	Lac Edouard Yard, Jonquiere Subdivision.	Que.	—	10	Collision head-on.
49058	Aug. 1	C.N.R.	St. Johns, Rouses Point Sub., Mileage 25-67.	Que.	—	12	Collision in yard.
49353	Aug. 6	C.N.R.	Near Lux, Caramat Subdivision, Mileage 31.	Que.	—	17	Collision rear-end.
49177	Aug. 29	C.N.R.	Richman, Quibell Subdivision, Mileage 44-7.	Ont.	—	5	Collision head-on.
49054	Sept. 23	C.N.R.	Yale Subdivision, Mileage 117-8.	Ont.	—	7	Collision head-on.
50015	Oct. 8	C.N.R.	Port Robinson, East of, Welland Sub., Mileage 8-23.	B.C.	—	3	Collision head-on.
49980	Oct. 15	C.N.R.	Togo Subdivision, Mileage 57-5.	Ont.	—	5	Collision head-on.
50924	Nov. 3	C.N.R.	Yonker, Unity Subdivision, Mileage 84-5.	Man.	—	1	Collision head-on.
50190	Nov. 12	C.N.R.	Plaster Rock, Grand Falls Sub., Mileage 48-03.	Sask.	—	1	Collision head-on.
50160	Dec. 9	C.N.R.	Todmorden, Bala Subdivision, Mileage 8-5.	N.B.	—	1	Collision head-on.
50399	Dec. 11	C.N.R.	Harte Subdivision, Mileage 45-8.	Man.	—	28	Collision head-on.
50326	Dec. 18	C.N.R.	Dutton, Togo Subdivision, Mileage 24-1.	Man.	—	4	Collision rear-end.
50430	Dec. 26	C.N.R.	Wainwright, Unity Subdivision, Mileage 140-0.	Alta.	1	5	Collision head-on.
48507	Jan. 24	C.P.R.	Ridgely, Heron Bay Subdivision, Mileage 31-9.	Alta.	—	6	Collision rear-end.
48578	Feb. 6	C.P.R.	Blackie, Aldersyde Subdivision, Mileage 73-8.	Alta.	—	1	Collision head-on.
49150	Feb. 17	C.P.R.	Blackie, Aldersyde Subdivision, Mileage 73-8.	Alta.	—	1	Collision head-on.
49154	May 31	C.P.R.	Guelp Junction, Keewatin Sub., Mileage 39-2.	Ont.	—	2	Collision rear-end.
49257	June 12	C.P.R.	Baldy's Pt., Keewatin Sub., Mileage 114-6.	Ont.	—	1	Collision rear-end.
49317	June 26	C.P.R.	Pilot Butte, 2 miles East, Indian Head Sd., Mileage 81-7.	Man.	—	1	Collision in yard.
49915	June 26	C.P.R.	Bowker, Nipigon Subdivision, Mileage 94-1.	Sask.	1	2	Collision rear-end.
49925	Oct. 12	C.P.R.	Royal, Togo Subdivision, Mileage 2-1.	Ont.	1	3	Collision rear-end.
48815	Mar. 11	N.A.R.	Edmonton Subdivision, Mileage 124.	Alta.	—	2	Collision rear-end.
49125	May 24	A.C. & H.B.	Price, 2 miles North of, Northern Subdivision, Mileage 223-5.	Alta.	—	3	Collision head-on.
49550	July 23	B.C.E.	Douglas Road, Burnaby Loc. Sub., District No. 4.	Ont.	—	10	Collision rear-end.
49544	Oct. 10	D.A.R.	Windsor, Truro Subdivision, Mileage 1-88.	B.C.	—	2	Collision head-on.
Totals				N.S.	4	253	

Year	Number of Accidents	Killed	Injured
1940	41	4	253
1948	48	20	374
Increase.	—	—	—
Decrease	7	16	121

STATEMENT NO. 8. DERAILMENTS INVOLVING PERSONAL INJURY DURING THE YEAR ENDED DECEMBER 31, 1949

Investigation File	Date	Railway	Place	Province	Killed	Injured	Remarks
48479	Jan. 2	C.N.R.	Oshabeneo Subdivision, Mileage 61	Que.	—	8	Broken rail.
48500	Jan. 18	C.N.R.	North, Drummond Subdivision, Mileage 118-3	Alta.	—	1	Snow conditions.
48509	Jan. 25	C.N.R.	West Tower, Gladstone Subdivision, Mileage 57	Man.	—	1	Broken journal.
48613	Jan. 27	C.N.R.	Near Lacombe, Kinross Sub., Mileage 8-39	Que.	—	2	Broken rail.
48613	Feb. 23	C.N.R.	Stony Plain, Wabamun Subdivision	Alta.	—	2	Broken rail.
4887	Mar. 29	C.N.R.	Haute Subdivision, Mileage 32	Man.	—	2	Open switch.
4887	Mar. 28	C.N.R.	Hamilton West, Dundas Sub., Mileage 0-41	Ont.	—	1	Un satisfactory track layout.
48880	Mar. 28	C.N.R.	Wainwright, Cufry Subdivision	Alta.	—	1	Water car pushed over board.
48900	Apr. 2	C.N.R.	West of Monbeam, Rapidsburg Sub., Mileage 59	Ont.	2	2	Broken rail.
49045	Apr. 2	C.N.R.	Lacknow, South of Kinross Sub., Mileage 8-16	Ont.	3	3	Oscillation of hopper car and excessive speed.
48925	Apr. 29	C.N.R.	Lafayette, L'Assomption Subdivision	Que.	—	1	Track condition.
49006	May 1	C.N.R.	Inwood Subdivision, Mileage 26-6	Man.	—	15	See kink.
49101	June 10	C.N.R.	Royalton Junction, Kenora Subdivision	P.E.I.	—	1	Switch point breaking.
49340	June 11	C.N.R.	Saint John's Subdivision, Mileage 77	Nfld.	—	1	See kink.
49032	May 3	C.N.R.	Ashcroft Subdivision, Mileage 71-5	B.C.	—	2	Mud and gravel slide.
49717	Aug. 28	C.N.R.	Chelan Subdivision, Mileage 44-3	Sask.	—	1	Soft track.
49763	Aug. 29	C.N.R.	Fort River, Badgley Subdivision, Mileage 63-04	N.B.	—	1	Broken rail.
49839	Sept. 13	C.N.R.	Chumpe, Kasabonka Subdivision, Mileage 29-3	Ont.	—	3	Open switch.
49847	Sept. 14	C.N.R.	Chumpe, Kasabonka Subdivision, Mileage 20	B.C.	—	3	Broken rail.
50308	Dec. 1	C.N.R.	Carleton Place Subdivision, Mileage 11-75	Ont.	—	1	Ice in langeway at crossing.
50206	Dec. 2	C.N.R.	Elmira Subdivision, Mileage 79	Alta.	—	30	Broken rail.
48544	Feb. 18	C.P.R.	Ladysmith Subdivision, Mileage 90-6	Alta.	3	4	Excessive speed.
49016	May 9	C.P.R.	Waskeswin Subdivision, Mileage 84-9	Alta.	—	2	Cars derailed by brake shoe in switch.
49285	June 17	C.P.R.	Bigwood, Parry Sound St., Mileage 84-9	Ont.	—	2	Front foot board of engine contact-ing loose earth.
49390	June 27	C.P.R.	Toronto Terminal Subdivision, Canada Packers Siding No. 11	Ont.	—	1	Open switch.
49419	July 14	C.P.R.	Owen Sound Subdivision, Mileage 71-75	Ont.	—	3	Relaying steel.
50467	Nov. 21	C.P.R.	Expanse Subdivision, Mileage 17	Sask.	—	1	Irregularity in surface and alignment of track.
49795	Aug. 21	B.C.E.	Between Vorce and Rayside Stations, near Hazard St., District No. 4 Subdivision	B.C.	—	3	Irregular and soft track; excessive speed.
49446	July 18	N.A.R.	Peace River Subdivision, Mileage 27-9	Alta.	—	1	Irregular and soft track; excessive speed.
49445	July 19	N.A.R.	Peace River Subdivision, Mileage 82-4	Alta.	—	1	Irregular and soft track; excessive speed.
49452	Aug. 7	N.A.R.	Edmonton Subdivision, Mileage 98	Alta.	—	2	Irregular and soft track; excessive speed.
48925	Mar. 14	S. & L.	Glouce Bay, Mileage 15-0	N.S.	—	1	Broken rail.
Totals.....					4	100	

Number of Accidents		Killed	Injured
1949.....	31	4	100
1948.....	21	2	46
Increase.....	10	2	54

REPORT OF THE COMMISSIONERS

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STATEMENT No. 9.—TOTAL NUMBER OF PERSONS KILLED AND INJURED ON RAIL-
WAYS FOR THE TEN YEARS ENDED DECEMBER 31, 1949

	Passengers		Employees		Others		Total	
	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
1940.....	5	304	58	872	250	578	313	1,754
1941.....	14	629	113	1,246	292	671	419	2,546
1942.....	44	779	123	1,225	283	661	450	2,665
1943.....	12	593	118	1,588	227	638	357	2,819
1944.....	10	472	87	1,820	256	585	353	2,877
1945.....	8	627	81	1,807	269	814	358	3,248
1946.....	5	435	89	1,677	231	607	325	2,719
1947.....	34	534	91	1,722	291	767	416	3,023
1948.....	16	553	92	2,188	291	723	399	3,464
1949.....	4	620	69	2,387	261	731	334	3,738
Totals....	152	5,546	921	16,532	2,651	6,775	3,724	28,853

TRANSPORT COMMISSIONERS OF CANADA

STATEMENT No. 19.—TRIPASSERS KILLED AND INJURED, BY PROVINCES AND RAILWAYS, FOR YEAR ENDED DECEMBER 31, 1949

	Prince Edward Island			Nova Scotia			New Brunswick			Quebec			Ontario			Manitoba			Saskatchewan			Alberta			British Columbia			Totals				
	Acc.	K.	I.	Acc.	K.	I.	Acc.	K.	I.	Acc.	K.	I.	Acc.	K.	I.	Acc.	K.	I.	Acc.	K.	I.	Acc.	K.	I.	Acc.	K.	I.	Acc.	K.	I.		
Canadian National	3	2	1		9	5	4	3	1	2	19	7	12	40	22	19	4	4	1	5	1	4	11	3	8	7	2	5	101	47	56	
Canadian Pacific								3	2	1	9	2	7	28	14	14	2	1	1	5	2	3	12	8	4	15	11	5	71	40	35	
Algoma Central & Hudson Bay														2	1	1													2	1	1	
Esquimalt & Nanaimo																										1	-	1	1	-	1	
Lake Erie & Northern														1	1	-													1	1	-	
Michigan Central															1	1	-												1	1	-	
Montreal & Southern Counties											1	-	2																1	-	2	2
National Harbour Board																										2	1	1	2	1	1	1
Nipissing Central											1	-	1																1	-	1	1
Toronto, Hamilton & Buffalo														3	3	-													3	3	-	-
Totals	3	2	1		9	5	4	6	3	3	30	9	22	75	42	34	6	5	2	10	3	7	23	11	12	25	14	12	187	94	97	

Acc.	Accidents	K.	Killed	I.	Injured.
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Acc. Accidents K. Killed I. Injured.

STATEMENT No. 11.—PERSONS KILLED AND INJURED IN THE MORE PROMINENT ACCIDENTS ON THE VARIOUS RAILWAYS, UNDER THE JURISDICTION OF THE BOARD, SHOWN SEPARATELY FOR YEARS ENDED DECEMBER 31, 1945, 1946, 1947, 1948 AND 1949

	1945		1946		1947		1948		1949		Total	
	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
Derailment.....	3	173	2	63	5	133	2	46	4	100	16	515
Collision head-on.....	8	190	8	109	32	197	8	106	1	166	57	768
Collision rear-end.....	6	109	9	70	6	78	12	188	2	60	35	505
Collision in yard.....		22		59	1	2		41	1	23	2	147
Collision at diamond crossing.....		29		2								31
Collision with cars account open switch.....		20		24	1	13		39		4		100
Highway crossing protected.....	40	110	20	74	27	115	32	81	38	120	157	500
Highway crossing unprotected.....	91	507	100	413	135	523	127	485	100	469	553	2,397
Adjusting couplers, coupling and uncoupling.....	3	76	6	50	3	62	5	67	3	69	20	324
Trespassing.....	110	75	91	90	98	77	115	77	94	97	508	416
Hand car, motor car, velocipede struck by train.....	8	59	12	38	13	22	7	24	3	36	43	179
Struck by switch stand, water spout, mail crane or other projection.....		17		15	2	19		20	1	21	3	92
Crushed between cars and buildings, lumber piles.....	1	13	1	8	1	12		8		10	3	51
Getting on and off passenger train.....	5	49	1	53	3	58	3	67		78	12	305
Falling off top of car.....	5	22	2	48	5	32	1	30	3	28	16	160
Falling between cars.....		1	1		2	3		4			3	8
Employees getting off train in motion.....	1	136		98	3	160	1	210	1	215	6	819
Employees boarding train in motion.....		91	2	71	1	94	2	85	1	112	6	453
Run down by engine or cars at stations or in yards.....	17	62	18	63	15	44	23	50	18	51	91	270
Explosion of locomotive boiler.....			2	1	1	1			1		4	2
Totals.....	298	1,761	275	1,349	354	1,645	338	1,628	271	1,659	1,536	8,042

TRANSPORT COMMISSIONERS OF CANADA

STATEMENT No. 12.—STATEMENT SHOWING HIGHWAY CROSSINGS AT WHICH IMPROVEMENTS HAVE BEEN EFFECTED AND THE NATURE OF SUCH IMPROVEMENT, DURING THE PERIOD OF TWELVE MONTHS ENDED DECEMBER 31, 1949

File No.	Order No.	Location of Crossing	Railway	Conditions at Crossing and Improvements Effectuated	Date of Improvement
30762-319 26807-92		Hudson Heights, Sellack Avenue, Quebec Macdon Station, just South of, Saskatchewan	C.P.R. C.P.R.	Approaches graded. Old sidewalks removed and replaced by concrete walks.	Feb. 23, 1949
43430 27445	70757 70933	St. Joseph, St. Leon St., Quebec Welland, Hager St., Ontario	C.N.R. C.N.R.	Two flashing light signals and one bell; formerly unprotected.	May 23, 1949
33220-161 33220-126	71105 71106	College Bridge, Springfield Subdivision, Mileage 103-8, N.B. Chapman, Darrach's Crossing, Chipman Subdivision, Mileage 46-95, N.B.	C.N.R. C.N.R.	Two flashing light signals and one bell; formerly unprotected.	Jan. 14, 1949
33220-162 33220-152	71069 71066	Banc Vert (Highway No. 16), Mileage 17-73, New Brunswick Souris (Highway No. 32), Sutherland Sub., Mileage 5-47, N.B.	C.N.R. C.N.R.	Two flashing light signals and one bell; formerly unprotected.	Jan. 24, 1949
37647 71050	71066 71050	Glendyne Subdivision, Mileage 37-44, Quebec La Tuque, St. Francois St., Mileage 122-77, La Tuque Sub., Que.	C.N.R. C.N.R.	Two flashing light signals and one bell; formerly unprotected.	Feb. 28, 1949
26782-37 71236	71018 71236	Riviere Bleue, Glendyne Subdivision, Mileage 45-20, Quebec Memramouc, Springfield Subdivision, Mileage 105-63, New Brunswick	C.N.R. C.N.R.	Two flashing light signals and one bell; formerly unprotected.	Feb. 26, 1949
33220-20	71248	Warwick, Daaville Subdivision, Mileage 63-14, Quebec	C.N.R.	Two flashing light signals and one bell in lieu of automatic bell and wigwag.	Jan. 13, 1949
26782-121	71243	Warwick, Daaville Subdivision, Mileage 63-14, Quebec	C.N.R.	Two flashing light signals and one bell, with one additional set of flashing lights for each side of the street; formerly unprotected.	Mar. 16, 1949
3481-52	71373	Stewiacke, Joyce's crossing, Bedford Sub., Mileage 47-80, N.S.	C.N.R.	Two flashing light signals and one bell; formerly automatic bell with fixed lights.	Feb. 10, 1949
9437-85 9437-1067	71365 71382	Simcoe, Norfolk St., (Highway No. 24), Ontario Montreal, Marsmeade and Bennett Ave., Longue Pointe Sub., Que.	C.N.R. C.N.R.	Two flashing light signals and one bell; formerly unprotected.	Mar. 16, 1949
16157	71386	Montreal, Germain St., and Dezery St., Longue Pointe Sub., Que.	C.N.R.	Two automatic flashing light signals and one bell, in lieu of manually controlled gates.	Apr. 6, 1949
9437-1027	71391	Montreal, Cuvillier St., Davidson St., Darling St., Longue Pointe Subdivision, Quebec	C.N.R.	Two automatic flashing light signals and one bell, in lieu of manually controlled gates.	Apr. 6, 1949
33220-9 27218-68	71358 71363	Stewiacke, Bedford Subdivision, Mileage 46-75, Nova Scotia Woodburn, Pallantyne Crossing, Mulgrave Sub., Mileage 49-94, N.S.	C.N.R. C.N.R.	Two flashing light signals and one bell in lieu of bell and wigwag.	Apr. 16, 1949
9437-1331 9437-173	71578 71487	Bader, 2nd East of Brampton Subdivision, Mileage 72-39, Ont. St. Hyacinthe Subdivision, Mileage 1-95, Route 22, Quebec	C.N.R. C.N.R.	Two flashing light signals and one bell; formerly bell and wigwag.	Aug. 10, 1949
27218-194	71662	Brown, Point Station, 1st North of Oxford Sub., Mileage 66-85, N.S.	C.N.R.	Two flashing light signals and one bell; formerly bell.	May 25, 1949
33220-115	71100	River Glade, 2nd West of Station, Sussex Sub., Mileage 11-8, N.B.	C.N.R.	Two flashing light signals and one bell; formerly unprotected.	Feb. 23, 1949
26782-281 26711-106	71750 71993	Jonquiere, St. Jean Baptiste Street, Mileage 105-07, Quebec Dumville Subdivision, Mileage 40-47, Ontario	C.N.R. C.N.R.	Two flashing light signals and one bell; formerly unprotected.	Mar. 16, 1949
26755-213	72304	Montreal, Desjardins Avenue, Quebec Stirling, 1st East of Station, Campbellford Sub., Mileage 17-37, Ont.	C.N.R. C.N.R.	Two flashing light signals and one bell; formerly unprotected.	Aug. 9, 1949
26705-213	72304	Stirling, 1st East of Station, Campbellford Sub., Mileage 17-37, Ont.	C.N.R.	Two flashing light signals and one bell; formerly unprotected.	Sept. 24, 1949
3481-41 34371	72342 72366	Near Onslow, Springfield Sub., Mileage 2-83, Nova Scotia Cansville Station, East of, Highway No. 54 (Blossom Ave.), Ont.	C.N.R. C.N.R.	Two flashing light signals and one bell; formerly unprotected.	July 29, 1949
				Two flashing light signals and one bell; formerly unprotected.	Aug. 10, 1949
					Sept. 1, 1949

TRANSPORT COMMISSIONERS OF CANADA

STATEMENT No. 12. STATEMENT SHOWING HIGHWAY CROSSINGS AT WHICH IMPROVEMENTS HAVE BEEN EFFECTED AND THE NATURE OF SUCH IMPROVEMENT, DURING THE PERIOD OF TWELVE MONTHS ENDED DECEMBER 31, 1949 (contd.)

File No.	Order No.	Location of Crossing	Railway	Conditions at Crossing and Improvements Effectuated	Date of Improvement
27066-11	73473	Hamilton, Cannon St., Ontario.....	T.H. & B.....	Two flashing light signals and one bell, in lieu of bell and wigwag signals	Dec. 20, 1949
28300-57	71131	Paradise Station, West of Provincial Highway No. 1, Kentville, Subdivision, Mileage 40-25, Nova Scotia.....	D.A.R.....	Three flashing light signals and one bell; formerly unprotected...	Feb. 19, 1949
44859	72822	St. Laramie, King's Park Road, L'Assomption Sub., Mileage 41-33, Que.....	C.N.R.....	Four flashing light signals and two bells. New crossing-dual lane highway	Dec. 13, 1949
27156-47	70666	Hull, Aylmer Road, Waltham Subdivision, Mileage 0-2 and M. & O., Subdivision, Mileage 90-4, Quebec.....	C.P.R.....	Two flashing light signals, bell and short arm automatic gate, formerly bell and wigwag	Aug. 15, 1949
9437-610	68837	Hamilton, Kelly and Cannon Streets at Ferguson Ave., Ontario	C.N.R.....	Four electric gates and five flashing light signals, and two NO LEFT TURN signs at Cannon Street, three flashing light signals and two NO LEFT TURN signs at Kelly Street, formerly watchman	Mar. 4, 1949
1252	70669	Kitchener, King St., West, Ontario.....	C.N.R.....	Flashing lights and electric short-arm gates, gate arm lights, and bells, one flashing light with an illuminated NO LEFT TURN sign, together with an annunciator; protection to be manually operated.	Feb. 25, 1940 May 6, 1940
39602	71047	Portage La Prairie, C.N.R., Pleasant Point Sub., Mileage 0-829, C.P.R., Carberry Sub., Mileage 57-38 (Provincial Highway No. 1), Manitoba.....	C.N.R. C.P.R.	Two short-arm automatic gates and flashing lights.	
14950	71270	Hamilton, Wentworth St., South, Ontario.....	T.H. & B. C.N.R.	Two automatic short-arm gates and two bells, two two-unit flashing light signals, and one illuminated NO RIGHT TURN sign with flashing yellow light, in lieu of manually operated gates.	Mar. 4, 1949
2634	71198	Calgary, 4th Street West, Alberta.....	C.P.R.	Three fixed electric lights (not to be flashed) on each gate arm of existing gates.	Feb. 8, 1949
38681-20	72439	Matapedia (Highway No. 9), Matapedia Subdivision, Mileage 13-14, Que.....	C.N.R.	Relocated flashing light signals and bell.	Aug. 10, 1949
26752-157	71259	Rimouski, Cathedral St., Rimouski Sub., Mileage 18-1, Quebec	C.N.R.	Bell and wigwag re-located.	June 2, 1949
45084-2	71963	Barraute-Kiasik Falls, Quebec.....	C.N.R.	Branch line constructed.	Mar. 3, 1949
30762-319	72132	Hudson, Selkirk Avenue, Quebec.....	C.P.R.	New crossing constructed; formerly private crossing.	Aug. 26, 1949
38183	68426	Boundary Subdivision, Mileage 123-25, British Columbia	C.P.R.	Highway diverted, old crossing closed, new crossing constructed	Feb. 1, 1949
Case 4658	71354	Revelstoke, Shuswap Sub., Mileage 3-415, British Columbia	C.P.R.	Highway diverted, old crossing closed, new crossing constructed	Sept. 21, 1949
3561-34		Beaulieu Subdivision, Mileage 29-25, Township of Torbolton, Ont.....	C.N.R.	Planking widened	Apr. 16, 1949
16388-146		Oxama, near Okanagan Sub., Mileage 98-7, British Columbia	C.N.R.	Crossing planks extended	June 18, 1949
45048		Truro, Bedford Subdivision, Mileage 64-3, Nova Scotia	C.N.R.	Electric lighting installed	Mar. 5, 1949
9437-185		Culph, Framosa Road, Coderich Sub., Mileage 31-59, Ont.	C.P.R.	Additional units installed to insure a clear view of two flashing light signals	Feb. 25, 1949
25542-46		St. Thomas, Wellington St., Ontario.....	L. & P.S.	Lighting increased by two and half time the former intensity	Nov. 2, 1949
27218-197	71134	Mabou, 2nd South of Station, Inverness Sub., Mileage 44-60, N.S.	C.N.R.	Trees removed	Jan. 25, 1949
9437-1142		Prince Albert, 4th Avenue West, Saskatchewan	C.N.R.	Buildings on South side of trackage removed	Feb. 26, 1949
27467-220		Mossbank Station, 1st West, Gravelbourg Sub., Mileage 48-2, Sask.	C.N.R.	Bushes trimmed to improve sight lines	Feb. 21, 1949
26765-28		Gowanstown Station, East of Newton Sub., Mileage 31-06, Ont.	C.N.R.	Outhouse, snow fence and brush removed.	Apr. 5, 1949
28786-92		New Serepta Station, 1st North, Canmore Sub., Mileage 24-43, Alta.	C.N.R.	Brush removed	Apr. 23, 1949

REPORT OF THE COMMISSIONERS

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27457-152	near temwood, Touchwood Subdivision, Mileage 13-19, Sask.	C.N.R.	Sight lines improved.	May 26, 1949
26711-957	Paddockwood Subdivision, Mileage 7-4, Saskatchewan	C.N.R.	Banks removed on each side of crossing.	June 7, 1949
33229-148	Soperton Station, 1st North, Westport Sub., Mileage 20-3, Ont.	C.N.R.	Brush removed from road side adjoining crossing.	June 11, 1949
37647-1	Welling Road, Logzville Sub., Mileage 10-60, New Brunswick.	C.N.R.		
37647-1	Fourth Range crossing, Glendyne Sub., Mileage 62-95, Quebec	C.N.R.	Bushes cut down on both sides of crossing.	July 28, 1949
37647-1	Village of Notre-Dame-du-Rosaire, Quebec	C.N.R.	Trees cut down and points of land cleaned out.	Aug. 10, 1949
37647-1	Pickering, 2-6 miles West of, Oshawa Sub., Mileage 314-10, Ont.	C.N.R.	Sight lines improved at crossings in village.	Sept. 22, 1949
37647-1	Mariposa Station, 1st West of, Uxbridge Sub., Mileage 7-43, Ont.	C.N.R.	Bushes cut down following accident August 30, 1949.	Sept. 22, 1949
37647-1	Alma, Picton Subdivision, Mileage 5-63, Nova Scotia	C.N.R.	Brush on east and west sides of road cut.	Oct. 12, 1949
37647-1	Waterloo, North of, John Streets, Ontario	C.N.R.	Trees cut down.	Oct. 18, 1949
37647-1	Waterloo, Union and Darenborn, Willow and Allan Streets, Ont.	C.N.R.	Trees and brush cut down on private property.	Nov. 9, 1949
37647-1	Chenawillam, 1st South, Rossburn Sub., Mileage 20, Manitoba.	C.N.R.	Brush in three corners of crossing cleared.	Nov. 18, 1949
37647-1	Glennora Road Crossing, Tidewater Sub., Mileage 2-61, B.C.	C.N.R.	Trees and shrubs removed.	Dec. 16, 1949
37647-1	Moritz, 1st North, Yorkton Subdivision, Mileage 42-2, Sask.	C.N.R.	Trees cut down on east and west sides.	Dec. 16, 1949
37647-1	Martins, 1st North, Huntsville Sub., Mileage 30-11, Ont.	C.N.R.	Top of road removed from return fencing.	Nov. 28, 1949
37647-1	Ascapedia Subdivision, Mileage 17-72, Quebec	C.N.R.	Trees and bushes removed.	Dec. 7, 1949
37647-1	Tarrys, Boundary Subdivision, Mileage 18-2, B.C.	C.N.R.	Sight lines improved.	Sept. 17, 1949
37647-1	MacTier Subdivision, Mileage 27-3, Ontario	C.N.R.	Earth removed to improve sight lines.	Nov. 17, 1949
37647-1	Greenwood, Oshawa Subdivision, Mileage 55-2, Ontario	C.N.R.	Brush cut down.	Jan. 20, 1949
37647-1	Cranford, 1st West of Station, Taber Sub., Mileage 87-9, Alta.	C.N.R.	Trees on south east corner and west side of road allowance south of the track removed.	Feb. 9, 1949
27401-104	Fairville, Sherbrooke St., West St. John Sub., Mileage 0-79 N.B.	C.N.R.		Feb. 15, 1949
27811-215	Lexion, 1st West, Stirling Subdivision, Mileage 100-76, Alta.	C.N.R.	Small bushes in northeast angle cut down.	Feb. 21, 1949
30702-319	Hudson Heights, Solukirk Avenue, Quebec	C.N.R.	Fence adjoining track cut down to three feet for a distance of 155 feet, and along highway west for 75 feet.	Mar. 10, 1949
27811-58	Coutis, Coutis Subdivision, Mileage 46-26, Alberta	C.N.R.	Sight lines cleared.	Mar. 23, 1949
27821-220	Crowsnest Subdivision, Mileage 13-78, Alberta	C.N.R.	Snow fence removed.	June 7, 1949
30702-319	Hudson Heights Sub., R.A. Avenue, Quebec	C.N.R.	Caragana hedge removed.	Aug. 6, 1949
20727-404	Millgrove Station, 1st East, Goderich Sub., Mileage 7-63, Ont.	C.N.R.	Weeds and brush removed.	Sept. 12, 1949
28300-59	Little Brook Station, 1st West, Yarmouth Sub., Mileage 51-42, N.S.	C.N.R.	Evergreen hedge removed southwest angle of crossing.	Sept. 27, 1949
29690-11	Kitchener, Courtland Ave., Waterloo Sub., Mileage 11-9, Ont.	D.A.R.	Bushes in southeast angle of crossing cut down.	May 31, 1949
27318-11	Bowley Shelter, South of (Highway No. 24) Port Dover to Galt Subdivision, Mileage 48, Ontario	G.R.R.	Brush on each side of crossing cut down.	July 30, 1949
30424-27	St. Thomas, Palm St., Ontario	L.E. & N.	Brush along Highway and Railway right-of-way and evergreen trees on private property removed.	Mar. 26, 1949
30424-27	St. Thomas, Kain's Street, Ontario	L. & P.S.	Trees and shrubs cut down northeast corner.	Apr. 23, 1949
26842-13	Niagara Falls, Stanley Avenue, 1st East of Montrose Yard, Ont.	L. & P.S.	Board fence removed southwest and southeast corners.	Apr. 23, 1949
27231-25	Scunland, Quaker Road, Welland Sub., Mileage 13-70, Ont.	N.C.R.	Bushes on grounds of the city incinerator removed.	May 28, 1949
33364-3	Highway No. 66, Kirkland Lake Sub., Ontario, Mileage 31-32, C. & T.	N.S.C. & T.	Scrub brush cut.	Aug. 3, 1949
9437-218	Bradford Station, 1st South, Newmarket Sub., Mileage 40-9, Ont.	N.C.R.	Trees and small bushes trimmed.	Aug. 17, 1949
27467-171	Saskatoon, 11th St., Govet Sub., Mileage 1-92, Sask.	C.N.R.	All brush around crossing removed.	July 28, 1949
36000	Elliotts, Kensington Subdivision, Mileage 25-8, P.E.I.	C.N.R.	Fences repaired.	Jan. 11, 1949
26842-13	Niagara Falls, Stanley Avenue, 1st East of Montrose Yard, Ont.	C.N.R.	New fences and gates erected.	Sept. 20, 1949
27802-38	Port Colborne, Dumville Sub., Mileage 19, Ont.	C.N.R.	Guard fences erected.	Oct. 5, 1949
27218-197	Mabon Station, 2nd North, Inverness Sub., Mileage 44-60, N.S.	C.N.R.	Advance warning signs erected.	Aug. 3, 1949
9437-1288	King Station, 2nd North, Newmarket Sub., Mileage 23-3, Ont.	C.N.R.	Advance warning signs erected.	Jan. 12, 1949
26711-898	Markham, 2 miles East of, Uxbridge Sub., Mileage 45, Ont.	C.N.R.	Advance warning signs erected.	Feb. 17, 1949
3701-56-2	Township of Markham, Uxbridge Sub., Mileage 42-5, Ont.	C.N.R.	Advance warning signs erected.	June 1, 1949
26727-506	Greenwood, Oshawa Subdivision, Mileage 56-2, Ontario	C.N.R.	Advance warning signs erected.	Aug. 5, 1949
27156-172	Harrison, Mount Forest Town Line, Teeswater Sub., Mileage 35-3, Ontario	C.N.R.	Advance warning signs erected.	Aug. 9, 1949
	Berthier Station, 2nd East, Three Rivers Sub., Mileage 44-52, Que.	C.N.R.	Advance warning signs erected.	Mar. 1, 1949
		C.N.R.	Advance warning signs erected.	May 4, 1949

STATEMENT No. 12.—STATEMENT SHOWING HIGHWAY CROSSINGS AT WHICH IMPROVEMENTS HAVE BEEN EFFECTED AND THE NATURE OF SUCH IMPROVEMENT, DURING THE PERIOD OF TWELVE MONTHS ENDED DECEMBER 31, 1949.

File No.	Order No.	Location of Crossing	Railway	Conditions at Crossing and Improvements Effected	Period of Improvement
9437-840		Rickford, Union St., Owen Sound Sub., Mileage 68.8, Ont.	C.P.R.	Advance warning sign erected	June 9, 1949
26727-587		Township of Markham, Peterboro Sub., Mileage 83.29, Ont.	C.P.R.	Advance warning signs erected	Aug. 5, 1949
26727-105		Lowest Hill Station, 2 miles West, Peterboro Sub., Mileage 82, Ont.	C.P.R.	Advance warning signs erected	Aug. 5, 1949
29600-11		Kitchener, Courtland Avenue, Waterloo Sub., Mileage 11.9, Ont.	G.R.R.	Advance warning signs erected	Oct. 25, 1949
26727-596		Harriston, Mount Forest Town Line, Teeswater Sub., Mileage 35.5, Ontario	C.P.R.	Advance warning signs replaced by new signs	May 27, 1949
27929-7		Middlemarch, Fingal Road, 1st West, Ontario	C. & O.	Advance warning sign replaced and re-located	July 26, 1949
33550-95		Borden, 1st East of Station, Borden Sub., Mileage 10.90, P.E.I.	C.N.R.	Advance warning re-erected	Dec. 20, 1949
28786-157		Edmonton, 82nd Street, Edmonton Terminal Sub., Mileage 1.17, Alta.	C.N.R.	Standard crossing sign erected south side of track.	Jan. 27, 1949
44860		Kimberley, 2nd North of Station, Kimberley Sub., Mileage 18.1, B.C.	C.P.R.	Standard crossing sign erected	Oct. 1, 1949
Case 4159		Oshawa, 1st Avenue, Ontario	O.R.R.	Standard crossing sign erected on North side of 1st Avenue	Dec. 2, 1949
34534		Craddock Station, 1st North of, Coutts Sub., Mileage 4.99, Alta.	C.P.R.	Standard crossing sign re-located	June 13, 1949
30424-14		St. Thomas, Kain's St., Ontario.	L. & P.S.	Standard crossing sign re-located corner removed, repainted and lowered	Apr. 18, 1949
26782-84		Ponteau Pic, Wharf Road, Murray Bay Sub., Mileage 85.23, Que.	C.N.R.	Stop signs erected	June 8, 1949
8342-13-93		Waterloo, Union and John Streets, Ontario	C.N.R.	Stop signs erected	Nov. 9, 1949
8463		Aberdeen Station, 1st East, Aberdeen Sub., Mileage 52.5, Sask.	C.N.R.	Stop signs erected	Dec. 6, 1949
9437-1142		Prince Albert, 4th Avenue, Saskatoon	C.N.R.	Stop signs erected	Feb. 26, 1949
27407-249		Saskatoon, Lorne Avenue, Govelet Sub., Mileage 59.3, Sask.	C.N.R.	ReflectORIZED stop signs erected	Mar. 7, 1949
27365-183		Newdale, 1st West of Station, Bredenbury Sub., Mileage 13.4, Man.	C.P.R.	Stop signs erected	Apr. 20, 1949
26529-23		Colebrook, 1st North, Second Subdivision, Mileage 130.9, B.C.	G.R.R.	Whistle post erected	Aug. 9, 1949
26384-34		Wartime, South of, Matador Sub., Mileage 8.3, Sask.	C.P.R.	Subway constructed. One crossing closed	Mar. 29, 1949
16388-146		Near Oshawa, Okanagan Subdivision, Mileage 98.7, B.C.	C.N.R.	Speed limitation of fifteen miles per hour	June 18, 1949
26711-958	72600	Orrilton, Elgin St., Midland Sub., Mileage 42.8, Ont.	C.N.R.	Speed limitation of ten miles per hour established	July 7, 1949
38065	72972	Burnaby, Lougheed Highway, District No. 4, Mileage 5.2, B.C.	B.C.E.	Speed limitation East-bound fifteen miles per hour established and West-bound twenty-five miles per hour established	Aug. 23, 1949
31329-1	73500	Highway No. 7, Armand Sub., Mileage 171.06, Quebec	C.V.R.	Speed limitation of twenty miles per hour established	Dec. 3, 1949
27053-158	72368	Petitot, Lake Shore Drive, Carni Sub., Mileage 133.7, B.C.	C.P.R.	Trains to be brought to a stop. All movements to be flagged.	May 6, 1949
27401-116	73010	Edmundston, 1st North, Edmundston Sub., Mileage 56.2, N.B.	C.P.R.	All movements to be flagged.	Aug. 30, 1949

STATEMENT No. 13.—STATEMENT SHOWING THE NUMBER OF HIGHWAY CROSSINGS AT WHICH PROTECTION HAS BEEN COMPLETED AND THE NATURE OF PROTECTION, SET OUT BY PROVINCES, FOR THE TWELVE MONTHS ENDED DECEMBER 31, 1949

	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia	Totals
Approaches graded.....				1			1			2
Two flashing light signals and one bell installed.....		8	14	14	31			1		1
Three flashing light signals and one bell installed.....		1							2	1
Four flashing light signals and two bells installed.....				1						1
Two flashing light signals, bell and short arm gates installed.....						1	1			4
Four electric gates, eight flashing light signals installed.....				1	1					1
Two flashing light signals, bells and short arm gates installed, manually controlled.....					1					1
Electric lights on gate arms installed.....								1		1
Flashing light signals and bell re-located.....				1						1
Bell and wigwag re-located.....				1						1
New crossings constructed.....				10						10
Highway diverted, old crossings closed, new crossing constructed.....										
Public crossing constructed in lieu of private cross- ing.....				1					2	2
Planking repaired.....										1
Electric lighting installed or repaired.....		1			1				1	2
Removal of obstructions to view.....		3	2	5	18	1	5	5	2	3
Fencing repaired.....	1				2		1			4
Advance warning signs erected.....		1		1	10					12
Advance warning signs re-erected.....	1							1		2
Standard crossing signs erected.....					1					1
Standard crossing signs re-located.....					1					2
Stop signs erected.....				1	1	1	3	1	1	3
Whistle posts erected.....										2
Subway constructed—crossing closed.....									1	1
Speed limitations established.....				1	1		1			1
Train movements flagged.....			1						2	4
Totals.....	2	14	17	38	72	3	12	9	12	179

TRANSPORT COMMISSIONERS OF CANADA

STATEMENT No. 14.—HIGHWAY CROSSING ACCIDENTS SHOWING NUMBER OF PERSONS KILLED AND INJURED, BY PROVINCES FOR THE YEAR ENDED DECEMBER 31, 1949

Railway	Newfound-land			Prince Edward Island			Nova Scotia			New Brunswick			Quebec			Ontario			Manitoba			Saskatchewan			Alberta			British Columbia			Total				
	A.	K.	I.	A.	K.	I.	A.	K.	I.	A.	K.	I.	A.	K.	I.	A.	K.	I.	A.	K.	I.	A.	K.	I.	A.	K.	I.	A.	K.	I.					
Canadian National	1			5	1		15	6	21		6		8	36	14	52	100	22	134	11	5	12	18	2	27	10	4	12	7	3	13	213	63	287	
Algonia Central & Hudson Bay										7			40	32	8	41	60	23	65	16	5	27	15	8	24	26	14	30	14	2	15	170	59	212	
British Columbia Electric																	1		3										5	3	7	9	1	3	
Central Vermont														3	1	2															2	1	2	3	1
Chesapeake & Ohio																	7		16													10	4	3	
Dominion Atlantic							2		4								1		3										2		3	2	2	4	
Esquimaux & Nainimo																	3		7													3	3	3	
Essex Terminal																																	1	1	1
Grand River																																			
Great Northern																																			
Lake Erie & Northern																																			
London & Port Stanley																																			
Midland Central																																			
Midland Railway of Manitoba																																			
Montreal & Southern Counties																																			
Napierville Junction																																			
New York Central																																			
Niagara, St. Catharines and Toronto																																			
Nipissing Central																																			
Northern Alberta																																			
Oshawa																																			
Quebec Central																																			
Quebec Railway Light & Power																																			
Sydney & Louisburg																																			
Toronto, Hamilton & Buffalo																																			
Total	1			1	5	1	7	19	6	27	17	6	18	78	23	107	193	56	254	29	10	42	33	10	51	37	15	43	29	8	39	441	138	589	

A.—Accident.

K.—Killed.

I.—Injured.

A.—Accident.

K.—Killed.

I.—Injured.

STATEMENT No. 15.—PARTICULARS OF ALL HIGHWAY CROSSING ACCIDENTS WITH DESCRIPTION OF PROTECTION OR NON-PROTECTION IN EFFECT FOR THE YEAR ENDED DECEMBER 31, 1949

—	Newfound-land			Prince Edward Island			Nova Scotia			New Brunswick			Quebec			Ontario			Manitoba			Saskatchewan			Alberta			British Columbia			Total		
	A.	K.	I.	A.	K.	I.	A.	K.	I.	A.	K.	I.	A.	K.	I.	A.	K.	I.	A.	K.	I.	A.	K.	I.	A.	K.	I.	A.	K.	I.			
Gates																																	
Automatic Highway Traffic Sig- nals																																	
Bell																																	
Bell and Wigwag																																	
Flashing Light Signals and Bells																																	
Watchman																																	
Unprotected																																	
Totals	1	1	1	5	1	7	19	6	27	17	6	18	78	23	107	193	56	254	29	10	42	33	10	51	37	18	43	29	8	39	441	138	589

STATEMENT No. 16.—STATEMENT SHOWING HIGHWAY CROSSING ACCIDENTS WITH
NUMBER OF PERSONS KILLED AND INJURED ON RAILWAYS FOR TEN-YEAR
PERIOD ENDED DECEMBER 31, 1949

	Accidents	Killed	Injured
1940.....	346	133	485
1941.....	380	137	521
1942.....	341	146	476
1943.....	301	111	439
1944.....	340	141	447
1945.....	382	131	617
1946.....	352	120	487
1947.....	442	162	638
1948.....	414	159	566
1949.....	441	138	589
Totals.....	3,739	1,378	5,265

STATEMENT No. 17.—CONTRIBUTING FACTORS INVOLVED IN VARIOUS CLASSES OF
CROSSING ACCIDENTS FOR YEAR 1949

	Accidents	Killed	Injured
<i>Auto Vehicles Struck by Train—</i>			
Daylight hours.....	161	61	193
Night hours.....	89	46	122
Total.....	250	107	315
<i>Horse-Drawn or Other Vehicles Struck by Train—</i>			
Daylight hours.....	1		1
Night hours.....	2	2	1
Total.....	3	2	2
<i>Pedestrians Struck by Train—</i>			
Daylight hours.....	15	7	8
Night hours.....	10	4	6
Total.....	25	11	14
<i>Auto Vehicles Ran Into Side of Train—</i>			
Daylight hours.....	44	4	58
Night hours.....	91	13	145
Total.....	135	17	203
<i>Accidents in which Track Cars Involved—</i>			
Daylight hours.....	28	1	55
Total.....	28	1	55
<i>Total Number of Accidents—</i>			
Daylight hours.....	249	73	315
Night hours.....	192	65	274
Grand Total.....	441	138	589

Number of accidents which occurred at crossings protected by Gates.....	10
Number of accidents which occurred at crossings protected by Automatic Highway Traffic Signals.....	2
Number of accidents which occurred at crossings protected by Bell.....	3
Number of accidents which occurred at crossings protected by Bell and Wigwag.....	59
Number of accidents which occurred at crossings protected by Flashing Light Signals and Bells....	19
Number of accidents which occurred at crossings protected by Watchman.....	6
Number of accidents which occurred at crossings Unprotected.....	342
Total.....	441

STATEMENT No. 18.—HIGHWAY CROSSING ACCIDENTS FOR THE YEAR ENDED DECEMBER 31, 1949

Inv. File	Board File	Date	Time	Railway	Place	Killed	Injured	Protection	Class of Accident
48521	33550-3	Jan. 22	2.00 p.m.	C.N.R.	Summerside, Water Street, Kensington Sd., Mileage 47-25, P.E.I.	—	—	Watchman, Bell and Wig-Wag.	Pedestrian, Auto truck.
48392	27218-22	Jan. 3	10.25 a.m.	C.N.R.	Stellarton, Bridge Street, Mulgrave Sd., Mileage 41-12, N.S.	—	1	—	Auto.
48445	9437-461	Jan. 28	3.00 p.m.	C.N.R.	Vaudreuil, (Onton) 1st West of Station, Cornwall Sd., Mileage 29-54, Que.	—	1	Gates, Flash Light Signal and Bell.	Auto.
48359	26782-87	Jan. 11	11.45 a.m.	C.N.R.	L'Islet, 1st East, Montmagny Sd., Mileage 64-7, Que.	—	2	—	Auto.
48458	16903	Jan. 17	1.37 p.m.	C.N.R.	Montreal East, Marlen Avenue, Longue Pointe Sd., Mileage 3-34, Que.	—	1	Unprotected	Auto truck.
48468	26782-158	Jan. 30	2.55 a.m.	C.N.R.	Sto. Rosalie 1st West, St. Hyacinthe Sd., Mileage 38-52 Que.	—	2	Unprotected	Auto.
48457	27154-22	Jan. 19	7.50 p.m.	C.N.R.	Deshamps, St. Raymond Paper Co., Siding, Jonquiere Sd., Mileage 69-92, Que.	—	1	Unprotected	Auto.
48354	26782-47	Jan. 1	6.25 a.m.	C.N.R.	Chicoutimi, Montcalm St., Jonquiere Sd., Mileage 114-6, Que.	—	3	Unprotected	Auto.
48545	40248-8	Jan. 12	8.55 p.m.	C.N.R.	Val d'Or Station, 2nd West, Val d'Or Sd., Mileage 36-6, Que.	—	2	Unprotected	Auto truck.
48450	27156-277	Jan. 23	2.10 a.m.	C.P.R.	LaSalle, LaSalle Ave., South Bank Branch, Mileage 0-8 Montreal Terminals, Que.	—	1	Unprotected	Auto.
48547	27156-97	Jan. 27	9.06 p.m.	C.P.R.	Megantic, Frontenac Street, Que.	—	1	Unprotected	Auto truck.
48409	9188-124	Jan. 12	11.25 a.m.	C.N.R.	Sudbury, Kathleen St., Sudbury Terminals Sd., Mileage 5-8, Ont.	—	1	Unprotected	Auto.
48374	26765-29	Jan. 8	12.10 p.m.	C.N.R.	Tillsonburg, West of Station, Highway No. 19, Cayuga Sd., Mileage 94-39, Ont.	—	1	Bell and Wig-Wag.	Auto.
48331	26765-77	Jan. 10	12.01 p.m.	C.N.R.	Simcoe, West St., 2nd East of Station, Simcoe Sd., Mileage 7-26, Ont.	—	1	Unprotected	Auto.
48400	26711-192	Jan. 4	11.20 a.m.	C.N.R.	Fort William, Donald St., Kashaowie Sd., Mileage 1-049, Loop Line, Ont.	—	3	Unprotected	Auto.
48446	26765-122	Jan. 20	7.13 p.m.	C.N.R.	Napanee Station, 3rd East of, Mooney's Crossing, Gananoque Sd., Mileage 196-75, Ont.	—	1	Unprotected	Auto truck.
48422	26711-165	Jan. 20	12.40 a.m.	C.N.R.	St. Thomas, Balacava St., Cayuga Sd., Mileage 118-67 Ont.	—	1	Unprotected	Auto.
48552	26711-225	Jan. 29	10.00 a.m.	C.N.R.	Guelph Junction, 1st West, Brampton Sd., Mileage 50-24, Ont.	—	2	Unprotected	Auto.
48528	9437-610	Jan. 31	6.10 p.m.	C.N.R.	Hamilton, Cannon St., Hagersville Sd., Mileage 0-53, Ont.	—	1	Watchman	Auto.
48424	26727-455	Jan. 25	7.05 a.m.	C.P.R.	Walkerville Junction, Pillate Road, 1st East of Windsor Sd., Mileage 106-80, Ont.	2	1	Unprotected	Auto.
48378	26727-503	Jan. 8	5.45 p.m.	C.P.R.	Kaministiquia, 1st East of Station, Kaministiquia Sd., Mileage 23-33, Ont.	—	3	Unprotected	Auto truck.
48467	26727-596	Jan. 24	3.42 p.m.	C.P.R.	Harrison, Mount Forest Town Line, Teeswater Sd., Mileage 35-5, Ont.	—	2	Unprotected	Auto.
48308	26727-595	Jan. 3	10.05 a.m.	C.P.R.	Alton, Queen St., 3rd North of Station, Orangeville Sd., Mileage 30-1, Ont.	—	1	Unprotected	Trailer Tractor
48357	26727-510	Jan. 15	8.10 p.m.	C.P.R.	Brampton, 2 miles north of, Orangeville Sd., Mileage 9-4, Ont.	2	1	Unprotected	Auto.
48513	26727-597	Jan. 31	2.28 p.m.	C.P.R.	Milton, 2nd West of, Galt Sd., Mileage 33-47, Ont.	—	1	Unprotected	Trailer.
48462	2210	Jan. 23	3-25 p.m.	C.P.R.	Bala, 2nd South Station, MacTier Sd., Mileage 114-7, Ont.	2	1	Unprotected	Auto.
48496	27318-32	Jan. 31	9.40 a.m.	L.E. & N.	Brantford, St. Paul's Ave., Port Dover to Galt Sd., Mileage 20-2, Ont.	—	1	Unprotected	Auto.
48512	9437-804	Jan. 29	9.40 a.m.	T.H. & B.	Brantford, Burford Road, Highway No. 53, Waterford Sd., Mileage 64-92, Ont.	—	1	Unprotected	Auto.
48471	27365-113	Jan. 24	9.05 a.m.	C.P.R.	Winnipeg, Naim Ave., Keewatin Sd., Mileage 124-19, Man.	—	3	Unprotected	Auto truck.
48510	27365-190	Jan. 27	7.02 p.m.	C.P.R.	Winnipeg, McPhillips St., Winnipeg Beach Sd., Mileage 0-327, Man.	—	2	Unprotected	Auto truck.
48527	27467-249	Jan. 30	4.05 K.	C.N.R.	Nutana, Lorne Ave., Govel Sd., Mileage 59-3, Sask.	—	2	Unprotected	Auto.

48474	27407-175	Jan. 22	9 25 a.m.	C.N.R.	Regina, 11th Avenue, Lewnam Sd., Mileage 115-4, Sask.	1	Unprotected	Auto truck.
48475	23662-2	Jan. 24	13 20 K.	C.N.R.	Prince Albert, River St., Blaine Lake Sd., Mileage 0-6, Sask.	3	Unprotected	Auto truck.
48541	27407-220	Jan. 25	11 20 K.	C.N.R.	Marathon, Travelbourg St., Mileage 48-2, Sask.	1	Unprotected	Auto truck.
48504	28786-168	Jan. 4	8 15 p.m.	C.N.R.	Edmonton, 63rd Ave., Edmonton Terminal Sd., Mileage 7-37, Alta.	1	Unprotected	Auto.
48459	27811-215	Jan. 17	4 15 p.m.	C.P.R.	Lethbridge, Lexton Crossing, Stirling Sd., Mileage 100-76, Alta.	—	Unprotected	Auto.
48490	27811-216	Jan. 27	9 40 a.m.	C.P.R.	Raymond, 1st East of Station, Cardston Sd., Mileage 6-44, Alta.	1	Unprotected	Auto.
48375	27073-158	Jan. 4	6 50 p.m.	C.P.R.	Penitenc, Lakeshore Drive, Carmi Sd., Mileage 133-7, B.C.	1	Unprotected	Auto truck.
48447	27073-24	Jan. 8	10 15 p.m.	C.P.R.	Coquitlam, 1st East of Station, Sloughnessy St., Cascade Sd., Mileage 112-2, B.C.	1	Unprotected	Auto truck.
48584	27073-109	Jan. 31	23 45 K.	C.P.R.	Castlegar, Rossland Sd., Mileage 1-8, B.C.	3	Unprotected	Auto.
48318	30051-51	Jan. 1	2 09 a.m.	B.C.E.	Vancouver, 12th Avenue, Lulu Island Sd., District No. 2, B.C.	2	Unprotected	Auto.
48602	33550-94	Feb. 17	10 09 a.m.	C.N.R.	Kensington, 3rd East of Station, Kensington Sd., Mileage 38-80, P.E.I.	3	Unprotected	Auto.
48520	27218-71	Feb. 4	8 45 p.m.	C.N.R.	New Glasgow, Trenton Road, Mulgrave Sd., Mileage 43-66, N.S.	1	Unprotected	Auto.
48534	35479	Feb. 3	11 55 a.m.	C.N.R.	Moncton, Enterprise St., Springhill Sd., Mileage 0-50, N.B.	—	Wig-Wag and Bell	Auto truck.
48556	17834	Feb. 5	3 50 p.m.	C.P.R.	Bath Station, 1st North of, Shogomoc Sd., Mileage 81-51, N.B.	1	Unprotected	Auto truck.
48741	26782-429	Feb. 15	9 50 a.m.	C.N.R.	Victoriaville Yard, St. Georges St., Aston Sd., Mileage 0-41, Que.	1	Unprotected	Horse-drawn sleigh.
48546	33993-5	Feb. 12	9 30 a.m.	C.P.R.	Lakeside Station, 1st East of, Winchester Sd., Mileage 7-90, Que.	1	Unprotected	Auto truck.
48595	27156-172	Feb. 22	11 30 a.m.	C.P.R.	Berther Station, 2nd East, Three Rivers Sd., Mileage 44-52, Que.	—	Single Bell and Wig-wag	Pedestrian.
48653	26705-185	Feb. 16	10 50 a.m.	C.N.R.	Ottawa, Rochester St., Renfrew Sd., Mileage 1-99, Ont.	1	Unprotected	Auto.
48686	Case 2581	Feb. 20	1 25 a.m.	C.N.R.	Belleville Station, 1st West, Camilton Road, Oshawa Sd., Ont.	1	Single Bell and Wig-wag	Auto truck.
48583	9437-214	Feb. 6	12 25 a.m.	C.N.R.	Newmarket, Davis Drive, Newmarket Sd., Mileage 34-1, Ont.	2	Unprotected	Auto.
48579	26711-554	Feb. 16	7 20 p.m.	C.N.R.	Samia, Vidal St., Point Edward Sd., Mileage 0-41, Ont.	2	Two Wig-wags and One Bell	Auto.
48572	26711-541	Feb. 3	10 25 a.m.	C.N.R.	Exeter Station, 2nd North, Exeter Sd., Mileage 27-47, Ont.	1	Single Bell and Wig-wag	Auto.
48670	26711-282	Feb. 23	12 50 a.m.	C.N.R.	Guelph Junction, Suffolk St., Fergus Sd., Mileage 30-83, Ont.	1	Unprotected	Auto.
48660	26711-492	Feb. 19	11 15 p.m.	C.N.R.	Humberstone, Highway No. 9, Humberstone Sd., Mileage 1-09, Ont.	4	Unprotected	Auto.
48659	26711-233	Feb. 22	9 52 p.m.	C.N.R.	Rymal, 1st West of, Hagersville Sd., Mileage 7-12, Ont.	1	Unprotected	Auto.
48627	26711-223	Feb. 5	2 15 p.m.	C.N.R.	Kitchener, Wilhelm St., Waterloo Sd., Mileage 0-44, Ont.	1	Unprotected	Auto.
48641	9437-244	Feb. 7	8 40 a.m.	C.N.R.	Mariposa Stn., West of, Oxford Sub., Mileage 7-53, Ont.	1	Unprotected	Auto.
48607	26727-367	Feb. 11	10 49 a.m.	C.P.R.	Cambridge Stn., West of, Highway No. 81, Windsor Sub., Mileage 15-19, Ont.	3	Two flashing light signals and bell	Auto.
48580	26727-386	Feb. 11	8 48 a.m.	C.P.R.	Innesburg Stn., 2 miles West, Galt Sub., Mileage 83-66, Ont.	2	Unprotected	Auto.
48700	26727-137	Feb. 19	7 53 a.m.	C.P.R.	Ottawa West, Parkdale Ave., Carleton Place Sd., Mileage 0-40, Ont.	1	Unprotected	Auto truck.
48793	42935	Feb. 25	8 30 p.m.	A.C. & H.B.	Wyborn, Ont.	1	Unprotected	Auto truck.
48511	27318-17	Feb. 5	1 43 p.m.	L.E. & N.	Maple Grove Shelter, Highway No. 24, Port Dover to Galt Sub., Mileage 27-7, Ont.	3	Unprotected	Auto truck.
48671	30424-27	Feb. 26	9 18 p.m.	L. & P.S.	St. Thomas, Palm St., Ont.	1	Single bell and wig-wag.	Auto.
48685	33364-5	Feb. 16	7 39 p.m.	N.C.R.	Kirkland Lake Stn., Kirkland Lake Sub., Mileage 10-88, Ont.	1	Unprotected	Auto truck.
48551	20961	Feb. 9	7 30 p.m.	T.H. & B.	Welland, Highway No. 3, Welland Sd., Mileage 1-10, Ont.	1	Flashing light signals and bell	Auto taxi.
48665	27365-187	Feb. 22	1 00 K.	C.P.R.	Estevan Sub., Mileage 62-9, Manitoba	3	Unprotected	Auto.
48603	26744-118	Feb. 12	1 50 a.m.	Mid. of Man.	Winnipeg, Isabel St., Manitoba.	1	Unprotected.	Pedestrian.

STATEMENT No. 18 HIGHWAY CROSSING ACCIDENTS FOR THE YEAR ENDED DECEMBER 31, 1949 (cont.)

Inj. File	Board File	Date	Time	Railway	Place	Killed	Injured	Protection	Class of Accident
48651	20751	Feb. 17	10 45 p.m.	C.P.R.	Saskatoon, Avenue "A", Sutherland Sub., Mileage 113-5, Sask.	—	1	Automatic highway traffic signals	Auto.
48543	26807-206	Feb. 6	12 45 a.m.	C.P.R.	Swift Current, Progress Avenue and South Railway St., Sask.	—	4	Unprotected	Auto.
48536	27073-56	Feb. 9	3 43 p.m.	C.P.R.	Tompson Sub., Mileage 87-18, British Columbia	—	1	Unprotected	Auto.
48529	38881-36	Mar. 20	4 00 p.m.	C.N.R.	Little Bras P.O., Sydney Sub., Mileage 79-90, Nova Scotia	—	3	Unprotected	Auto.
48697	28300-59	Mar. 3	10 30 a.m.	D.A.R.	Little Bras Stn., 1st West, Yarmouth Sub., Mileage 51-42, N.S.	—	2	Unprotected	Auto.
48922	37565	Mar. 26	9 30 p.m.	S. & L.	Sydney Yard, Victoria Road, Nova Scotia	—	1	Unprotected	Auto.
48928	33229-143	Mar. 19	4 20 p.m.	C.N.R.	Capeauquet, Caraque Sub., Mileage 49-5, New Brunswick	—	1	Unprotected	Auto.
48673	35479	Mar. 3	11 20 p.m.	C.N.R.	Moncton, Enterprise Sub., Franklin Sub., Mileage 0-50, N.B.	—	1	Unprotected	Auto.
48743	9437-635	Mar. 13	4 21 p.m.	C.N.R.	Montreal Terminals, St. Henri, Des ourcelles St., Quebec	—	1	Unprotected	Auto.
48846	26782-15	Mar. 13	4 21 p.m.	C.N.R.	Charny Stn., 1st East, Bridge Sub., Mileage 0-6, Quebec	—	2	Unprotected	Auto.
48669	9437-363	Mar. 9	10 28 a.m.	C.N.R.	Upton, Ste. Hyacinthe Sub., Mileage 26-34, Quebec	—	1	Unprotected	Auto.
48840	27156-10	Mar. 24	10 52 a.m.	C.P.R.	Outremont, Rockland Ave., Adirondack Sub., Mileage 49-39, Que.	—	1	Unprotected	Auto.
48842	27156-261	Mar. 27	1 14 a.m.	C.P.R.	Calumet, 1st East, Lachute Sub., Mileage 58-82, Que.	—	2	Unprotected	Auto.
48911	27156-288	Mar. 31	6 02 a.m.	C.P.R.	Waterloo, Highway No. 7, Drummondville Sub., Mileage 15-96, Que.	—	1	Unprotected	Auto.
48742	27156-99	Mar. 17	9 05 a.m.	C.P.R.	Rock Forest, Sherbrooke Sub., Mileage 74, Quebec	—	1	Unprotected	Auto.
48711	9437-149	Mar. 11	10 50 a.m.	C.N.R.	Toronto, Dupont St., Ontario	2	1	Unprotected	Auto.
48797	9437-178-1	Mar. 22	3 55 p.m.	C.N.R.	Port Credit, Slavebank Rd., Oakville Sub., Mileage 13-10, Ont.	—	1	Double bell and wigwags	Cyclist.
48836	26711-655	Mar. 25	3 20 p.m.	C.N.R.	Hamilton, Parkdale Ave., Grimsby Sub., Mileage 39-55, Ont.	1	—	Flashing light signal and bell	Auto.
48827	26711-952	Mar. 30	2 10 p.m.	C.N.R.	Goshen, 1st West of Stn., Renfrew Sub., Mileage 49-60, Ont.	1	—	Unprotected	Auto.
48799	26705-24	Mar. 21	10 50 p.m.	C.N.R.	London, Adelaide St. (Back tracks), Dundas Sub., Mileage 77-23, Ont.	—	1	Unprotected	Auto.
48757	26711-942	Mar. 18	1 25 a.m.	C.N.R.	Sudbury Jct., 2nd West, Sudbury Terminals Sub., Mileage 1-4, Ont.	—	1	Unprotected	Auto.
48738	26711-950	Mar. 11	10 50 p.m.	C.N.R.	Windsor, 2-12 miles North of, Hickson Sub., Mileage 2-12, Ont.	—	4	Unprotected	Auto.
48739	9437-1122	Mar. 10	1 50 p.m.	C.N.R.	Woodstock, Light St., Hickson Sub., Mileage 1-26, Ont.	—	1	Unprotected	Auto.
48750	26711-951	Mar. 8	10 45 p.m.	C.N.R.	West Port William, Q. J. Rd., over C.N.R. Mission Track Yards, Wathead Terminals Sub., Ont.	—	3	Unprotected	Auto.
48853	26711-957	Mar. 11	10 15 a.m.	C.N.R.	Lyndhurst, Westport Sub., Mileage 20, Ontario	—	2	Unprotected	Auto.
48847	26711-953	Mar. 21	12 25 p.m.	C.N.R.	Green Lane, 1st North of Stn., Vankleek Sub., Mil. 18.07, Ont.	—	1	Unprotected	Auto.
48748	26727-174	Mar. 22	10 40 a.m.	C.P.R.	Windsor, Dougall Ave., Windsor Sub., Mileage 110-34, Ont.	—	1	Single bell and wigwag	Auto.
48826	9437-1219	Mar. 13	4 03 p.m.	C.P.R.	Metcalfe Rd., Sussex St. Sub., Mileage 1-29, Ontario	—	1	Flashing light signal and bell	Auto.
48772	25493-1 Pt. 2	Mar. 22	7 20 p.m.	C.P.R.	Toronto, Cherry St. Yard, Eastern Avenue, Ontario	—	1	Watchman	Auto.
48712	9437-938	Mar. 5	3 20 p.m.	C.P.R.	Tilsontown, Tilson Ave., Port Burwell Sub., Mileage 15-4, Ont.	—	2	Unprotected	Auto.
48677	26727-238	Mar. 2	3 50 p.m.	C.P.R.	Kenora, 2nd East of Stn., Ignace Sub., Mileage 144-39, Ont.	—	1	Unprotected	Auto.
48760	26727-199	Mar. 14	9 14 a.m.	C.P.R.	Warman Sub., 1st West, Cartier Sub., Mileage 43-11, Ont.	—	1	Unprotected	Auto.
48740	26727-76	Mar. 17	6 46 p.m.	C.P.R.	Port Arthur, Nipigon Sub., Mileage 128-83, Ontario	—	2	Unprotected	Auto.
48747	26727-75	Mar. 19	8 15 p.m.	C.P.R.	Arkwood, 1st West, Windsor Sub., Mileage 59-31, Ontario	—	3	Unprotected	Auto.

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Mar.	23	10 42 a.m.	C.P.R.	Kingston Sub., Mileage 102-02, Ont.	1	Unprotected.	Pedestrian.
48759	2627-598	5 10 p.m.	C.P.R.	Owen Sound, 26th St. North, Owen Sound Sub., Mileage 70-4, Ontario	1	Unprotected.	Horse-drawn vehicle.
48798	25791	2 05 p.m.	C. & O.	Windsor, Seminole St. Sub. No. 1, Walkerville Yard, Ont.	1	Unprotected.	Auto.
48714	27802-3	2 05 p.m.	T.H. & B.	Hamilton, Main St. at Cage Ave., Belt Line Sub., Ontario.	2	Single bell and wigwag. Three automatic bells and wigwag signals	Auto truck.
48750	2467-69	5 45 p.m.	C.N.R.	Gravelbourg Sub., Mileage 75-5, Saskatchewan	1	Unprotected.	Auto truck.
48802	27511-218	10 18 K.	C.P.R.	Infislat Stn., 2-1 miles South, Red Deer Sub., Mileage 72-9, Alta.	1	Unprotected.	Auto truck.
48763	30213-33	9 50 a.m.	C.N.R.	Rosedale, Yale Sub., Mileage 64-51, British Columbia	2	Unprotected.	Auto.
48929	27218-199	7 10 a.m.	C.N.R.	Brentwood, 1st South of Station, Bedford Rd., Mileage 53-5, N.S.	1	Unprotected.	Pedestrian.
48850	9437-350	6 25 a.m.	C.N.R.	Ste. Madeleine, 1st East, Ste. Hyacinthe Rd., Mileage 48-97, Que.	1	Unprotected.	Auto.
48845	27156-40	2 11 0 a.m.	C.P.R.	Quebec, Marie de l'Incarnation St., Quebec Rd., Mileage 157-80, Que.	1	Unprotected.	Auto.
48848	9437-323	9 52 a.m.	C.P.R.	Point Claire, Valois Ave., Winchester Rd., Mileage 7-30, Que.	2	Unprotected.	Auto.
48924	27156-8	11 30 p.m.	C.P.R.	Hull West Station, 1st West, M. & O. Rd., Mileage 90-4, Que.	1	Unprotected.	Auto.
48840	37062-1	12 45 a.m.	C.P.R.	St. Jerome, Oumet St., Ste. Agathe Rd., Mile 13-80, Que.	2	Unprotected.	Auto.
48897	31320-1	1 Apr. 16	C.V.R.	Iberville, South of St. Armand Rd., Mileage 171-96, Que.	1	Unprotected.	Auto.
48859	9437-1244	9 35 a.m.	C.N.R.	Toronto, Mount Denis, Eglinton Ave., Brampton Rd., Mileage 6-82, Ont.	1	Unprotected.	Auto.
48951	26711-955	7 15 a.m.	C.N.R.	Peterboro, Westcott St., Campbellford Rd., Mile 62-76, Ont.	1	Unprotected.	Auto.
48928	26711-954	2 30 p.m.	C.N.R.	Brantford, Nelson St., Burford Rd., Mileage 0-69, Ont.	1	Unprotected.	Auto.
49011	26711-958	3 35 p.m.	C.N.R.	Orillia Station, 1st West, Elgin St., Midland Rd., Mileage 42-8, Ont.	1	Unprotected.	Auto.
48966	26727-87	3 45 p.m.	C.P.R.	Agincourt Station, 1st West, Oshawa Rd., Mileage 96-47, Ont.	1	Unprotected.	Auto.
49014	26727-34	8 45 p.m.	C.P.R.	Renfrew, Renfrew St., Chalk River Rd., Mileage 58-68, Ont.	1	Unprotected.	Auto.
48995	9437-841	6 08 p.m.	C.P.R.	Perth, Wilson St., Belleville Rd., Mileage 12-42, Ont.	3	Unprotected.	Auto.
48918	26727-599	9 15 a.m.	C.P.R.	Carley, 5th South, MacTier Rd., Mileage 77-27, Ont.	1	Unprotected.	Auto.
48874	29916	11 00 p.m.	E.T.R.	Windsor, Kildare Road, Ont.	1	Unprotected.	Auto.
48946	26842-196	8 10 p.m.	M.C.R.	Charing Cross, 1st West, Main Line Rd., Mileage 173-10, Ont.	3	Unprotected.	Auto.
48868	26744-171	2 35 p.m.	C.N.R.	Vassar, 1st West of Station, Sprague Rd., Mileage 68-6, Man.	1	Unprotected.	Auto.
48888	27365-191	5 33 p.m.	C.P.R.	West Kildonan, Winnipeg Beach Rd., Mileage 2-92, Man.	2	Unprotected.	Auto.
48930	27365-193	11 50 a.m.	C.P.R.	Elm Creek, 1st East of Station, Glenboro Rd., Mileage 41-6, Man.	1	Unprotected.	Auto.
48981	26807-208	8 40 a.m.	C.P.R.	Kerobert Station, 1st North, Macdon Rd., Mileage 0-89, Sask.	1	Unprotected.	Auto.
48909	26786-35	10 20 a.m.	C.N.R.	Unity Rd., Mileage 109, Alberta.	3	Unprotected.	Auto.
48865	2236-105	8 00 p.m.	C.N.R.	Rocky Mountain Station, 1st West, Wabamun Rd., Mileage 116-05, Alta.	2	Unprotected.	Auto.
48866	19342	10 52 a.m.	C.P.R.	Clareholm, 1st South of Station, Macleod Rd., Mileage 80-72, Alta.	1	Unprotected.	Pedestrian.
48934	Case 4235	5 24 p.m.	C.P.R.	Didsbury Station, 1st West, Red Deer Rd., Mileage 46-5, Alta.	2	Unprotected.	Auto.
48831	27365-192	2 50 p.m.	C.P.R.	Carman Rd., Mileage 11-15, Man.	1	Unprotected.	Pedestrian.
48932	27811-219	4 35 p.m.	C.P.R.	Lundbreck Station, 2nd West, Crownsnest Rd., Mileage 73-31, Alta.	1	Unprotected.	Auto.
48824	27073-25	8 40 p.m.	C.P.R.	Hammond Station, 1st West, Cascade Rd., Mileage 105-32, B.C.	5	Unprotected.	Auto.
48954	27073-128	12 05 p.m.	C.P.R.	Grand Forks, 1st East of Station, Boundary Rd., Mileage 94-48, B.C.	1	Unprotected.	Auto.
49129	27218-200	1 46 p.m.	C.N.R.	Mulgrave Rd., Mileage 73-76, N.S.	2	Unprotected.	Road Grader.

STATEMENT No. 18. HIGHWAY CROSSING ACCIDENTS FOR THE YEAR ENDED DECEMBER 31, 1949 (cont.)

Inv. File	Board File	Date	Time	Railway	Place	Killed	Injured	Protection	Class of Accident
49142	26782-86	May 30	4 45 p.m.	C.N.R.	St. Agapit Station, 2nd West, Danville Sd., Mileage 13, Que.	—	3	Unprotected	Auto.
49053	30747-3	May 22	10 40 a.m.	N.J.R.	Lacolle, 46 miles South of, Delson Sd., Mileage 5-18, Que.	—	3	Unprotected	Auto.
49143	21135	May 6	9 45 K.	C.N.R.	Fort William, corner Arthur and Franklin Streets, Ont.	—	1	Automatic highway traffic signal	Auto truck.
49075	9437-1317	May 20	6 10 p.m.	C.N.R.	Weston, 1.55 miles West of, First West, Brampton Sd., Mileage 10-41, Ontario.	—	6	Bell and wigwag	Auto.
49037	9437-552	May 9	9 12 p.m.	C.N.R.	London, Egerton St., Dundas Sd., Mileage 76-44, Ont.	—	1	Watchman	Auto.
49029	26711-480	May 1	2 55 a.m.	C.N.R.	Richmond Hill Station, 3-08 miles South of, Langstaff Road, Bala Sd., Mileage 18-15, Ont.	—	2	Unprotected	Auto truck.
49166	18706	May 28	1540 K.	C.N.R.	Fort William, Victoria Ave., at Vickers Street, Ont.	—	1	Unprotected	Auto.
49121	26765-175	May 24	6 59 p.m.	C.N.R.	Baden Station, 4th East of, Brampton Sd., Mileage 71-53, Ont.	2	—	Unprotected	Auto.
49007	26727-37	May 2	10 47 a.m.	C.P.R.	Coakley, 4 mile East of, Galt Sd., Mileage 86-48, Ont.	1	—	Unprotected	Auto truck.
49034	26727-184	May 3	3 23 p.m.	C.P.R.	Petaawawa Station, 1st East of, Doran St., Chalk River Sd., Mileage 103-61, Ont.	—	—	Unprotected	Military truck.
49050	26727-188	May 18	8 47 a.m.	C.P.R.	Milton Station, 1st East of, Galt Sd., Mileage 31-85, Ont.	—	1	Unprotected	Auto.
49168	26727-168	May 31	2 05 p.m.	C.P.R.	Monklands, 2nd East of, Winchester Sd., Mileage 62-25, Ont.	1	—	Unprotected	Auto.
49009	26842-19	May 12	9 39 a.m.	M.C.R.	Welland Station, East Lincoln St., Montrose Division, Mileage NF 12-44, Ont.	—	1	Bell and wigwag	Auto truck.
49008	26842-13	May 11	9 32 p.m.	M.C.R.	Niagara Falls, Stanley Ave., Montrose Division, Mileage NF 3-40, Ont.	—	—	Bell and wigwag	Auto.
49046	18946	May 13	11 18 p.m.	T.H. & B.	Hamilton, Barton St., Belt Line Sd., Ont.	—	2	Bell and wigwag	Auto.
49882	27829-73	May 7	9 13 p.m.	C. & O.	Kingsville, 4 mile West of, Provincial Highway No. 18A, No. 1 Subdivision, Mileage 30-01, Ont.	—	—	Bell and wigwag	Auto.
49119	35460-17	May 30	4 35 p.m.	G.R.R.	Preston, Guelph St., Waterloo Sd., Mileage 3-6, Ont.	—	6	Unprotected	Auto.
49087	26744-172	May 23	8 30 a.m.	C.N.R.	Middlebro, 1st West of, Shelter, Sprague Sd., Mileage 48-56, Man.	—	1	Unprotected	Motorcycle.
49010	26786-169	May 2	3 05 p.m.	C.N.R.	Donalda Station, 3rd South of, Stettler Sd., Mileage 32-4, Alta.	1	—	Unprotected	Auto truck.
49070	27811-221	May 23	1 00 p.m.	C.P.R.	Red Deer Sd., Mileage 26-0, Alberta.	—	1	Unprotected	Pedestrian.
49073	27811-220	May 16	7 00 a.m.	C.P.R.	Crowsnest Sd., Mileage 13-78, Alberta.	1	—	Unprotected	Pedestrian.
49127	26216	May 19	2 225 K.	C.P.R.	Laguan Sd., Mileage 67-0, Alberta.	—	—	Unprotected	Auto.
49856	24540-14	May 3	2 15 p.m.	E. & N.	Victoria Sd., Mileage 50-0, B.C.	—	1	Unprotected	Auto.
49518	27218-45	June 11	2 30 a.m.	C.N.R.	Sydney, Prince St., Sydney Sd., Mileage 101-7, N.S.	—	1	Unprotected	Auto truck.
49291	38651-29	June 24	12 15 a.m.	C.N.R.	Cartier Station, 1st East, Diamond Sd., Mileage 7-8, Que.	—	4	Single bell and wigwag	Auto.
49179	26782-291	June 13	9 15 a.m.	C.N.R.	Grenmont, North of, Montfort Sd., Mileage 16-65, Que.	—	3	Flashing light signal and bell	Auto.
49267	26782-430	June 9	4 35 p.m.	C.N.R.	Between Chamaller and Newport Stations, Chamaller Sd., mileages 39-45, Que.	—	—	Unprotected	Auto.
49206	36600-26	June 16	8 25 a.m.	C.P.R.	North of Joliette, St. Gabriel Sd., Mileage 7-71, Que.	1	1	Unprotected	Auto truck.
49191	27156-292	June 21	11 05 a.m.	C.P.R.	Laprade, 2nd West, Quebec Sd., Mileage 107-01, Que.	—	2	Unprotected	Auto.
49302	26711-962	June 18	12 10 a.m.	C.N.R.	Rideau, Gamaque Sd., Mileage 168-20, Ont.	—	2	Unprotected	Auto.
49296	26711-502	June 18	8 28 a.m.	C.N.R.	Sunderland Station, 2 miles north, Cobocnik Sd., Mileage 4-31, Ont.	—	2	Unprotected	Truck and trailer.
49219	26711-28	June 9	1 07 a.m.	C.N.R.	Fort Frances, Fort Frances Sd., Mileage 88-9, Ont.	—	1	Unprotected	Auto.
49363	26711-963	June 25	3 14 p.m.	C.N.R.	Lefroy Station, 1st North, Newmarket Sd., Mileage 51-8, Ont.	—	2	Unprotected	Auto truck.
49382	26711-901	June 10	11 35 p.m.	C.N.R.	Welland Junction, Forks Road East, Humberstone Sd., Mileage 4-31, Ont.	—	2	Unprotected	Auto.

49186	9437-105	June 14	2.46 p.m.	C.P.R.	Islington, Dundas St., Highway No. 5A, Galt St., Mileage 7-7, Ont.
49297	26727-482	June 27	12.01 p.m.	C.P.R.	Lindsay, Bobcaygeon St., Mileage 15-59, Ont.
49211	3701-36	June 7	3.55 p.m.	C.P.R.	Newcastle Station, 1st East, Oshawa St., Mileage 55-59, Ont.
49210	3701-168	June 7	7.10 a.m.	C.P.R.	Renfrew, West Street, Oshawa St., Mileage 0-19, Ont.
49171	26727-84	June 9	10.55 p.m.	C.P.R.	Midway, 1-4 miles north, MacTier St., Mileage 88-5, Ont.
49216	27029-7	June 25	7.15 p.m.	C. & O.	Midway, 1st West, Fingal Road, Subdivision No. 1, Mileage 122-9, Ont.
49157	28680-11	June 12	6.38 p.m.	G.R.R.	Kitchener, Courtland Ave., Waterloo St., Mileage 11-9, Ont.
49217	9437-585	June 18	5.10 p.m.	M.C.R.	St. Thomas, William St., Main Line St., Mileage 116, Ont.
49415	9437-722	June 28	2.45 p.m.	T.H. & B.	St. Ans Station, Welland St., Mileage 14-49, Ont.
49197	18946	June 14	10.00 a.m.	T.H. & B.	Hamilton, Barton St., Bell Line St., Ont.
49195	27802-25	June 26	7.02 p.m.	T.H. & B.	Hamilton, Ottawa St., Welland St., Mileage 34-57, Ont.
49279	27467-256	June 16	4.00 p.m.	C.N.R.	Star City, 1st East of Station, Tisdale St., Mileage 84-76, Sask.
49282	26807-209	June 21	1.54 p.m.	C.P.R.	Oreanda, 1st West of Station, Wynyard St., Mileage 34-2, Sask.
49290	26807-57	June 23	4.04 p.m.	C.P.R.	Grand Coulee, Indian Head St., Mileage 103-9, Sask.
49327	26807-210	June 29	1.30 p.m.	C.P.R.	Lonsford Station, 2nd East, Empress St., Mileage 68, Sask.
49151	27811-222	June 8	1.50 a.m.	C.P.R.	Turner Station, 2nd North, MacLeod St., Mileage 68-72, Alta.
49372	27811-96	June 20	11.29 a.m.	C.P.R.	South Edmonton, 63rd Ave., Ledue St., Mileage 95-76, Alta.
49306	27811-36	June 15	7.40 a.m.	C.N.R.	Chilliwack, Yale Road, Yale St., Mileage 72-2, B.C.
49327	29599-23	June 23	1.45 p.m.	G.N.R.	Colbrook, 1st North, 2nd St., Mileage 130-9, B.C.
49383	33580-4	July 22	1.00 p.m.	C.N.R.	Charlottetown, St. Peter's Road, Kensington St., Mileage 0-82, P.E.I.
49341	33229-93	July 9	9-25 a.m.	C.N.R.	Between Renous and Blackville, Nashville St., Mileage 18, N.B.
49432	33229-65	July 26	6.00 p.m.	C.N.R.	Dalhousie Junction, 1st West, Bathurst St., Mileage 98-22, N.B.
49486	27401-116	July 30	12.00 noon	C.P.R.	Edmundston, Victoria St., Edmundston St., Mileage 52-2, N.B.
49439	36600-40	July 25	5.28 p.m.	C.N.R.	St. Hyacinthe, Drummondville St., Mileage 126-8, Que.
49519	26782-432	July 30	11.00 a.m.	C.N.R.	Amos Station, 2nd West, Amos Subdivision, Mileage 54, Que.
49289	27156-102	July 11	2.20 p.m.	C.P.R.	Magog Station, 2 miles West, Sherbrooke St., Mileage 89-05, Que.
49293	27156-236	July 7	3.10 a.m.	C.P.R.	Mount Orford Station, 1st East, Sherbrooke St., Mileage 92-7, Que.
49438	12072-65	July 15	7.33 a.m.	M. & S.C.	Chamby Basin, 2nd West, Interurban Mileage 15-78, Que.
49437	12072-43	July 25	3.13 p.m.	M. & S.C.	Chamby, Covie St., Interurban Mileage 40-31, Que.
49435	26711-512	July 27	2.00 p.m.	C.N.R.	Peterboro, Campbellford St., Mileage 61-50, Ont.
49420	9437-552	July 11	12.45 a.m.	C.N.R.	London, Egerton St., Dundas St., Mileage 76-44, Ont.
49671	26711-966	July 21	9.05 p.m.	C.N.R.	Belton, Emily Street, Ont.
49547	26727-134	July 25	5.50 p.m.	C.P.R.	Green Valley, Winchester St., 1st East of Mileage 49, 10, Ont.
49362	3701-62	July 15	6.41 a.m.	C.P.R.	Oshawa, Wilson Road, Oshawa St., Mileage 71-04, Ont.
49457	26727-404	July 26	8.50 a.m.	C.P.R.	Saskatoon Station, just East of, Goderich St., Mileage 7-63, Ont.
49431	24767-246	July 29	11.33 p.m.	C.N.R.	Saskatoon, 1st North of Lorne Ave., Saskatoon St., Mileage 1-3, Sask.
49414	26807-89	July 24	3.22 a.m.	C.P.R.	Moosomin, 3rd West of Station, Broadview St., Mileage 86-91, Sask.
49316	27811-29	July 9	12.35 a.m.	C.P.R.	Midnapore Station, -92 miles North of, MacLeod St., Mileage 7-88, Alta.

STATEMENT No. 13. HIGHWAY CROSSING ACCIDENTS FOR THE YEAR ENDED DECEMBER 31, 1949 (cont.)

Inv. File	Board File	Date	Time	Railway	Place	Killed	Injured	Protection	Class of Accident
49401	14925	July 22	6.45 p.m.	C.P.R.	Coleman Station, 1st East of, Crownest Sd., Mileage 91-56, Alta.	1	—	Unprotected.	Pedestrian.
49407	30221-2-8	July 5	1.20 p.m.	C.N.R.	Chapman's Station, West of, Yale Sd., Mileage 13-8, B.C.	—	2	Unprotected.	Auto.
49408	38058	July 16	4.53 p.m.	B.C.E.	Burnaby, Loughheed Highway, District No. 4, B.C.	—	1	Unprotected.	Auto.
49454	27218-262	Aug. 19	11.40 a.m.	C.N.R.	Alma, 1st South of Station, Picton Sd., Mileage 5-63, N.S.	—	1	Unprotected.	Auto.
49550	26752-50	Aug. 23	11.50 a.m.	C.N.R.	(Montreal) Drenth St., Jonquiere Sd., Mileage 114-1, Que.	—	5	Unprotected.	Auto.
49551	26752-433	Aug. 20	9.30 p.m.	C.N.R.	Dosbiers Station, Jonquiere Sd., Mileage 88-3, Que.	—	—	Unprotected.	Auto.
49552	9437-662	Aug. 20	7.52 a.m.	C.P.R.	Lacade Station, 1st North, Adirondack Sd., Mileage 24-55, Que.	1	—	Unprotected.	Auto.
49552	13243-12	Aug. 27	8.10 p.m.	Q.R.L. & P.	Ste. Anne de Beaupre, Regina St., Montmorency Sd., Mileage 20-6, Que.	—	2	Unprotected.	Auto.
49552	31646-20	Aug. 15	10.16 p.m.	Q.C.R.	Coleman Station, 1st South, Quebec Sd., Mileage 57-5, Que.	—	3	Unprotected.	Auto.
49555	26711-145	Aug. 17	9.15 p.m.	C.N.R.	Hamilton, King William St., at Ferguson Ave., Hagersville Sd., Mileage 0-78, Ont.	—	2	Flashing light signal and bell.	Auto.
49552	25403-1	Aug. 14	1.35 a.m.	C.N.R.	Toronto, Eastern Ave., Toronto Terminals Sd., Cherry St. Lead, Ont.	—	1	Unprotected.	Auto.
49582	26711-969	Aug. 31	16.55 K.	C.N.R.	Fort William, Edward St., Ont.	—	3	Unprotected.	Auto.
49754	26711-222	Aug. 29	1.05 p.m.	C.N.R.	Allendale Station, 2 miles South, Milton Sd., Mileage 82-2, Ont.	—	1	Unprotected.	Auto.
49708	26765-103	Aug. 30	8.20 p.m.	C.N.R.	Campbellford, Centre St., Campbellford Sd., Mileage 30-21, Ont.	—	—	Unprotected.	Auto.
49669	26711-957	Aug. 30	7.42 p.m.	C.N.R.	Pickering, West of, Oshawa Sd., Mileage 313-50, Ont.	5	—	Unprotected.	Auto.
49737	26711-748	Aug. 25	6.30 p.m.	C.N.R.	Brechin East Station, 1st North, Bala Sd., Mileage 72-39, Ont.	1	—	Unprotected.	Auto.
49652	26711-964	Aug. 17	6.23 a.m.	C.N.R.	Marlin Sd., 1st North, Huntsville Sd., Mileage 30-1, Ont.	—	1	Unprotected.	Auto.
49619	26711-965	Aug. 19	8.45 a.m.	C.N.R.	Collin's Bay, 3-58 Miles West, Gananoque Sd., Mileage 184, Ont.	—	1	Unprotected.	Auto.
49551	4437-1183	Aug. 17	10.40 a.m.	C.N.R.	Peterboro, Monaghan Road, at siding leading to Nashua Paper Co., Lakefield Sd., Mileage 29-80, Ont.	—	1	Unprotected.	Auto.
49450	26711-301	Aug. 20	11.00 p.m.	C.N.R.	Riverside, Ottawa Terminals, Mileage 1-64, Ont.	—	4	Flashing light signal and bell.	Auto.
49609	26727-318	Aug. 20	8.55 a.m.	C.P.R.	Islington, Montgomery Road, Galt Sd., Mileage 8-3, Ont.	—	1	Unprotected.	Motorcycle.
49513	26727-263	Aug. 17	6.35 a.m.	C.P.R.	Sudbury, Riverside St., Cartier Sd., Mileage 79-07, Ont.	—	2	Unprotected.	Auto.
49520	26727-600	Aug. 22	8.35 a.m.	C.P.R.	Elwood, Walkley Road, Sussex Sd., Mileage 0-35, Ont.	—	1	Unprotected.	Auto.
49582	26842-146	Aug. 29	4.52 p.m.	M.C.R.	LaSalle, Cole Road, Highway No. 59, Main Line Sd., Mileage 82-27, Ont.	—	1	Double bell and wigs.	Auto.
49610	27231-13	Aug. 19	7.45 p.m.	M. St. C. & T.	Merrittville, Stop No. 10, Welland Sd., Mileage 9-97 from St. Catharines, Ont.	—	2	Unprotected.	Auto.
49559	27802-19	Aug. 6	10.25 a.m.	T.H. & B.	Brantford, Mount Pleasant St., Highway No. 24, Watford, Sd., Mileage 63-29 from Welland, Ont.	—	2	Unprotected.	Auto.
49533	26744-173	Aug. 10	11.25 a.m.	C.N.R.	Margaret Station, 1st East, Hartney Sd., Mileage 22-9, Man.	—	1	Unprotected.	Auto.
49561	27365-20	Aug. 18	6.28 p.m.	C.P.R.	Headingley, 1st South of Passenger Shelter, Glenboro Sd., Mileage 9-66, Man.	—	—	Unprotected.	Auto.
49752	27365-98	Aug. 24	22.25 K.	C.P.R.	LaRiviere Sd., Mileage 1, Man.	—	1	Unprotected.	Auto.
49426	26744-118	Aug. 23	7.00 p.m.	Mid. Rly. of M.	Winnipeg, Isabel St., Winnipeg Terminals Sd., Man.	—	5	Unprotected.	Auto.
49761	27467-214	Aug. 23	15.15 K.	C.N.R.	Yorkton Sd., Mileage 42-2, Sask.	—	2	Unprotected.	Auto.
49518	27467-257	Aug. 13	5.36 p.m.	C.N.R.	Lestock Station, 1st West, Touchwood Sd., Mileage 58-17, Sask.	—	2	Unprotected.	Auto.
49517	26807-15	Aug. 15	6.15 p.m.	C.P.R.	Regina, Lanigan Sd., Mileage 2, Highway No. 1, Sask.	—	1	Unprotected.	Auto.

40551	26507-154	Aug. 18	11 20 a.m.	C.P.R.	Weyburn, Portal Sd., Mileage 83, Highway No. 39, Sask.	3	Unprotected.	Auto.
40552	26507-192	Aug. 24	14 30 K.	C.P.R.	Lanigan Sd., Mileage 9-6, Sask.	2	Unprotected.	Auto.
40604	26786-157	Aug. 29	9 30 a.m.	C.N.R.	Edmonton, 82nd St., Edmonton Terminals Sd., Mileage 1-17, Alta.	1	Unprotected.	Auto.
40678	30046	Aug. 27	5 26 K.	C.P.R.	Brooks Sd., Mileage 74, (Cassils), Alta.	1	Unprotected.	Auto.
40591	27073-159	Aug. 7	8 20 a.m.	C.P.R.	Hope Station, 1st East, 2nd Ave., Coquihalla Sd., Mileage 34-3, B.C.	1	Unprotected.	Auto truck.
40621	44860	Aug. 24	11 40 p.m.	C.P.R.	Kimberley, Kimberley Ave., 2nd North of Station, Kimberley Sd., Mileage 18-1, B.C.	1	Unprotected.	Auto.
40891	27218-22	Sept. 20	9 15 p.m.	C.N.R.	Stellarton, Bridge St., Mulgrave Sd., Mileage 41-12, N.S.	1	Unprotected.	Auto.
40702	33229-71	Sept. 10	12 05 a.m.	C.N.R.	Littleton, 1st East, 2nd East of Station, Sydney Sd., Mileage 80-05, N.S.	1	Unprotected.	Auto.
40659	27218-108	Sept. 8	8 49 a.m.	C.N.R.	Fitzpatrick Siding, 1st South of, Oxford Sd., Mileage 49-01, N.S.	2	Unprotected.	Auto.
40681	37830-14	Sept. 15	11 00 p.m.	S. & L.	New Waterford, Madden's Crossing, N.S.	1	Unprotected.	Auto truck.
40853	27401-117	Sept. 28	3 50 p.m.	C.P.R.	DeMarchants crossing, Tobique Sd., Mileage 3-8, N.B.	1	Unprotected.	Auto.
40748	9437-959	Sept. 23	11 05 p.m.	C.N.R.	St. Hilaire, 1st West of Station, St. Hyacinthe Sd., Mileage 54-33, Que.	1	Unprotected.	Auto.
40653	26782-434	Sept. 8	9 35 a.m.	C.N.R.	Val St. Michel, 1st South of Station, Batiscan Sd., Mileage 12-33, Que.	5	Unprotected.	Auto.
40731	26782-360	Sept. 25	12 40 a.m.	C.N.R.	Montreal South, St. Helene St., Sorel Sd., Mileage 1-65, Que.	1	Unprotected.	Auto.
40794	12529	Sept. 19	12 20 p.m.	C.P.R.	Quebec, St. Valier St., Quebec Sd., Mileage 157-69, Que.	1	Unprotected.	Pneumatic drill
40730	27156-203	Sept. 25	5 57 p.m.	C.P.R.	St. Augustin, 1st East of Station, Leclaire Sd., Mileage 27-42, Que.	1	Unprotected.	Auto truck.
40795	31646-25	Sept. 15	10 40 p.m.	Q.C.R.	Robertson, 1st south of Station, Quebec Sd., Mileage 73-5, Que.	1	Unprotected.	Auto.
40792	9437-196	Sept. 21	3 07 p.m.	C.N.R.	Millie Roches, 1st West of Station, Cornwall Sd., Mileage 72-60, Ont.	1	Unprotected.	Auto.
40749	9437-1158	Sept. 19	6 55 p.m.	C.N.R.	Casselman, 1st West of Station, Alexandria Sd., Mileage 104-70, Ont.	1	Unprotected.	Auto truck.
40797	26711-86	Sept. 13	10 22 a.m.	C.N.R.	St. Catharines, Louth St., Grimsby Sd., Mileage 12-02, Ont.	1	Unprotected.	Pedestrian.
40812	26711-908	Sept. 23	1 50 p.m.	C.N.R.	Simcoe Junction, .07 miles East of, 1st East of, Cayuga Sd., Mileage 74-27, Ont.	1	Unprotected.	Auto truck.
40831	26711-682	Sept. 8	11 30 a.m.	C.N.R.	Port Arthur, Second Ave., Rip track lead, Lakehead Terminals Sd., Ont.	1	Unprotected.	Auto.
40842	26711-900	Sept. 10	5 35 p.m.	C.N.R.	Hyde Park, 1-73 miles north of, Prov. Highway No. 22, Exeter Sd., Mileage 1-73, Ont.	1	Unprotected.	Auto.
40843	9437-552	Sept. 10	7 10 p.m.	C.N.R.	London East, Egerton St., Dundas Sd., Mileage 76-44, Ont.	1	Unprotected.	Auto truck.
40848	26711-123	Sept. 9	6 25 p.m.	C.N.R.	Parry Sound, Cascade St., Sudbury Sd., Mileage 2-39, Ont.	1	Unprotected.	Auto.
40940	26711-162	Sept. 23	1 05 p.m.	C.N.R.	Port Hope, Dorset St., Lakefield Sd., Mileage 0-45, Ont.	1	Unprotected.	Auto truck.
40841	9437-1066	Sept. 23	1 05 p.m.	C.N.R.	Sudbury, Elm St., Cartier Sd., Mileage 79-0, Ont.	2	Unprotected.	Auto.
40618	26727-101	Sept. 8	9 13 a.m.	C.P.R.	Islington, Bloor St., Highway No. 5, Galt Sd., Mileage 8-9, Ont.	1	Unprotected.	Pedestrian.
40723	26727-468	Sept. 10	11 46 a.m.	C.P.R.	Sudbury, 1st East of, Cartier Sd., Mileage 77-25, Ont.	2	Unprotected.	Auto truck.
40838	26727-601	Sept. 28	5 45 p.m.	C.P.R.	Natadowa, 1st East - Station, Timiskaming Sd., Mileage -0, Ont.	1	Unprotected.	Pedestrian.
40850	26727-136	Sept. 24	12 30 a.m.	C.P.R.	Milton, 1st West of Diamond, Galt Sd., Mileage 32-81, Ont.	1	Unprotected.	Auto truck.
40939	Case 4159	Sept. 19	9 42 p.m.	Oshawa Ry.	Oshawa, 1st Avenue, Ont.	1	Unprotected.	Auto.
40755	27365-194	Sept. 3	8 45 p.m.	C.P.R.	North Warden, Neudorf Sd., Mileage 1-1, Man.	1	Unprotected.	Auto.
40762	27365-41	Sept. 15	8 46 a.m.	C.P.R.	North Warden, 1st East Station, Keewatin Sd., Mileage 119-74, Man.	1	Unprotected.	Auto.
40733	27365-40	Sept. 16	2 57 p.m.	C.P.R.	Virden, Broadway Sd., Mileage 48, Man.	2	Unprotected.	Auto.
40754	27467-253	Sept. 6	5 00 p.m.	C.N.R.	Braunepath, 1st West of Station, Tisdale Sd., Mileage 128-5, Sask.	2	Unprotected.	Auto.
40756	27467-196	Sept. 4	11 50 p.m.	C.N.R.	Goodeve, 1st East of Station, Touchwood Sd., Mileage 18-46, Sask.	1	Unprotected.	Auto.
40920	26807-212	Sept. 29	24 35 K.	C.P.R.	Wynyard Sd., Mileage 26-66, Sask.	3	Unprotected.	Auto.
40726	26786-79	Sept. 3	20 30 K.	C.N.R.	Valeoso, 1st South of, Camrose Sd., Mileage 2-2, Alta.	1	Unprotected.	Auto.

STATEMENT No. 13.—HIGHWAY CROSSING ACCIDENTS FOR THE YEAR ENDED DECEMBER 31, 1949 (cont.)

Inv. File	Board File	Date	Time	Railway	Place	Killed	Injured	Protection	Class of Accident
49771	618-79	Sept. 29	7:45 a.m.	C.P.R.	Red Deer, 1st South of Station, Victoria Ave., Red Deer Sd., Mileage 93-1, Alta.	—	1	Bell and wigwag	Auto truck.
49660	27811-141	Sept. 7	8:45 a.m.	C.P.R.	Daysburg, 1st East of Station, Wetaskiwin Sd., Mileage 43-62, Alta.	—	1	Unprotected	Auto.
49765	27811-223	Sept. 27	11:10 a.m.	C.P.R.	Leduc Sd., Mileage 82-98, Alta.	—	1	Unprotected	Auto truck.
49773	618-27-1	Sept. 17	3:30 p.m.	C.P.R.	Coronation, 1st West of Station, Lacombe Sd., Mileage 0-3.	—	3	Unprotected	Auto.
49697	27847-24	Sept. 30	16:15 K.	C.N.R.	Tidewater Sd., Mileage 2-6, Glenora Road Crossing, B.C.	—	1	Unprotected	Auto.
49750	37482	Sept. 2	10:27 p.m.	C.P.R.	New Westminster, Royal Ave., Westminster Sd., Mileage 5-7, B.C.	—	1	Unprotected	Auto.
49640	30051-52	Sept. 13	8:51 a.m.	B.C.E.	Vancouver, 41st Ave. and Blvd., District No. 2 Sd., B.C.	—	1	Unprotected	Station wagon.
49649	27073-11	Sept. 26	10:10 K.	E. & N.	North Cowichan, Victoria Sd., Mileage 43-8, B.C.	—	2	Unprotected	Auto.
50007	33550-95	Oct. 27	12:35 a.m.	C.N.R.	Borden, 1st East of Station, Borden Sd., Mileage 10-90, P.E.I.	1	2	Unprotected	Auto.
49681	27218-203	Oct. 19	6:35 a.m.	C.N.R.	Christmas Island, 2nd East of Station, Sydney Sd., Mileage 51-28, N.S.	2	—	Unprotected	Auto.
50065	33229-74	Oct. 28	12:55 a.m.	C.N.R.	Sussex, Sussex Sd., Mileage 43-26, N.B.	—	1	Bell and wigwag	Auto.
50096	33229-172	Oct. 29	8:50 a.m.	C.N.R.	St. Quentin Sd., Mileage 102-97, N.B.	—	1	Unprotected	Auto truck.
49882	27401-75	Oct. 3	8:00 p.m.	C.P.R.	Kilburn, 2nd South of C.P.R., Siding, Shogomoc Sd., Mileage 92-69, N.B.	—	1	Bell and wigwag	Auto truck.
49927	27401-118	Oct. 20	8:10 p.m.	C.P.R.	Upper Kent, 1st South of Station, Shogomoc Sd., Mileage 88-10, N.B.	—	2	Unprotected	Auto.
49919	27401-114	Oct. 18	4:20 p.m.	C.P.R.	Hale, 1st South of Siding, Shogomoc Sd., Mileage 66-40, N.B.	—	1	Unprotected	Auto.
49959	12243	Oct. 26	1:05 a.m.	C.N.R.	Montreal Terminals, Atwater Ave., Bonaventure Main Line, Que.	—	1	Gates	Auto.
49922	9437-635	Oct. 27	4:00 p.m.	C.N.R.	St. Henri, DeCourcelles St., Montreal Terminals Sd., Que.	—	1	Gates	Pedestrian.
50067	26782-15	Oct. 22	6:35 p.m.	C.N.R.	Charly, 1st East of Station, Que.	—	1	Unprotected	Auto.
49957	27156-38	Oct. 19	8:30 p.m.	C.P.R.	Roxton Falls, Notre-Dame St., Drummondville Sd., Mileage 35-9, Que.	2	—	Unprotected	Auto.
49942	27156-104	Oct. 14	5:10 a.m.	C.P.R.	Megantic, Agnes St., Moosehead Sd., Mileage 116-72, Que.	—	1	Unprotected	Auto truck.
50013	9437-113	Oct. 30	10:45 p.m.	C.P.R.	Farnham, St. Louis St., Adirondack Sd., Mileage 6-2, Que.	—	1	Unprotected	Auto.
50012	27156-97	Oct. 29	11:30 p.m.	C.P.R.	Megantic, Frontenac St., Megantic Sd., Mileage 0-23, Que.	—	1	Unprotected	Auto.
49913	31829-1	Oct. 13	7:05 p.m.	C.V.R.	Iberville, South of St. Armand Sd., Mileage 171-96, Que.	1	3	Unprotected	Auto.
49941	26765-99	Oct. 1	12:35 p.m.	C.N.R.	Peterboro, Brock St., Campbellford Sd., Mileage 63-76, Ont.	—	1	Bell and wigwags	Auto.
49929	26711-972	Oct. 24	6:50 p.m.	C.N.R.	Moulton, just West of Station, Cayuga Sd., Mileage 32-94, Ont.	—	—	Unprotected	Auto.
50022	26711-974	Oct. 14	3:20 p.m.	C.N.R.	Millikens, (Bridge) Sd., Mileage 52-80, Ont.	1	—	Unprotected	Auto.
50023	26711-13	Oct. 20	6:50 p.m.	C.N.R.	Capreol, Young St., Sudbury Sd., Mileage 128-51, Ont.	—	1	Unprotected	Auto.
50009	26711-791	Oct. 8	1:25 a.m.	C.N.R.	Peterboro, Park Hill Road, Campbellford Sd., Mileage 64-61, Ont.	—	1	Unprotected	Auto.
49928	26711-973	Oct. 7	2:15 p.m.	C.N.R.	Simcoe, South Drive, Simcoe Sd., Mileage 6-82, Ont.	—	1	Unprotected	Auto.
49967	9437-105	Oct. 29	7:10 a.m.	C.P.R.	Islington, Dundas St., Galt Sd., Mileage 7-76, Ont.	—	1	Flashing light signal and bell	Auto.
50098	26727-802	Oct. 26	6:45 a.m.	C.P.R.	Carleton Place Yard, Chalk River Sd., Mileage 17-70, Ont.	—	1	Unprotected	Gasoline truck.
50097	26727-372	Oct. 31	6:40 a.m.	C.P.R.	Sault Ste. Marie, Cathcart St., Thessalon Sd., Mileage 131, Ont.	—	1	Unprotected	Auto.
49899	27929-49	Oct. 9	3:40 a.m.	C. & O.	Blenheim, Chatham St., Subdivision No. 1, Mileage 74-80, Ont.	—	1	Unprotected	Auto.
50034	27929-74	Oct. 31	11:00 p.m.	C. & O.	Wallaceburg, Forhan St., 1st North of water tank, Ont.	—	2	Unprotected	Auto.
49944	26744-174	Oct. 8	4:20 p.m.	C.N.R.	Chatham, 1st South of Station, Rosbourn Sd., Mileage 20, Man.	—	1	Unprotected	Auto truck.

50025	21020	Oct. 22	20 20 K.	C.N.R.	St. Boniface, Dawson Road, Man.	1	Unprotected.	Auto truck.
50032	26744-176	Oct. 27	21 20 K.	C.N.R.	Brandon, 10th St., Groner St., Man.	1	Unprotected.	Auto.
49902	26744-175	Oct. 27	11 25 a.m.	C.N.R.	Harte St., Mileage 9.4, Man.	1	Unprotected.	Auto.
	Case 4803	Oct. 10	6 00 a.m.	C.P.R.	Portage la Prairie, 1st West of Station, Carberry St., Mileage 55-80, Man.	2	Unprotected.	Auto.
50066	21823	Oct. 27	20 30 K.	C.P.R.	Winnipeg Terminals, Intersection of Marion St. and Emerson St., Man.	1	Unprotected.	Auto.
		Oct. 13	9 00 a.m.	C.P.R.	Bredenbury St., Mileage 65-5, Man.	1	Unprotected.	Auto.
49945	27365-195	Oct. 17	1 55 a.m.	C.N.R.	Saskatoon, Lorne Ave., Saskatoon St., Mileage 1-26, Sask.	3	Unprotected.	Truck.
49858	27467-35	Oct. 7	10 35 a.m.	C.N.R.	Wakaw, Cudworth St., Mileage 66, Sask.	1	Unprotected.	Auto.
50044	10395-77	Oct. 20	18 38 K.	C.N.R.	Wynward, 1st East of Station, Wynward St., Mileage 113-5, Sask.	2	Unprotected.	Auto truck.
49921	26707-213	Oct. 24	10 45 a.m.	C.P.R.	Gainsborough, 1st West of Station, Estevan St., Mileage 81-6, Sask.	1	Unprotected.	Auto truck.
49903	26807-211	Oct. 8	10 54 a.m.	C.P.R.	Indian Head Subdivision, Mileage 39-6, Sask.	2	Unprotected.	Auto.
50050	26807-149	Oct. 22	17 35 K.	C.P.R.	LaFleche Station, 1st West, Shaunavon St., Mileage 28-2, Sask.	2	Unprotected.	Horse-drawn vehicle.
49960	26807-214	Oct. 27	8 50 a.m.	C.P.R.	Vegreville Subdivision, Mileage 51-6, Alta.	1	Unprotected.	Auto truck.
50033	26786-170	Oct. 22	15 10 K.	C.N.R.	Calgary, Burns Ave., Macleod St., Mileage 0-34, Alta.	1	Unprotected.	Auto truck.
49892	27811-15	Oct. 4	11 25 a.m.	C.P.R.	Avola, 1st East of Station, Clearwater St., Mileage 24-54, B.C.	1	Unprotected.	Auto truck.
50079	46089	Nov. 5	4 25 p.m.	C.N.R.	Red Cliff, Bishop Falls St., Mileage 280, Nfld.	2	Unprotected.	Auto.
50162	33550-10	Nov. 19	4 04 p.m.	C.N.R.	Kensington Subdivision, Mileage 44-56, P.E.I.	2	Unprotected.	Auto.
50232	28300-60	Nov. 22	4 20 p.m.	D.A.R.	Central Station, 1st North of, Kingsport St., Mileage 4-70, N.S.	2	Unprotected.	Auto.
50161	33229-173	Nov. 20	2 35 p.m.	C.N.R.	Port Elgin, Tormentine Subdivision, Mileage 19-89, N.B.	2	Unprotected.	Auto.
50100	33229-94	Nov. 11	8 40 p.m.	C.N.R.	McGivney, 2nd East of Station, Chipman St., Mileage 84-90, N.B.	2	Unprotected.	Auto.
50059	7843	Nov. 9	5 05 p.m.	C.N.R.	St. Henri, Rose de Lima St., Montreal Terminals St., Que.	1	Unprotected.	Auto.
50255	26782-52	Nov. 25	11 50 a.m.	C.N.R.	Chircoutimi, Leves St., Jonquiere St., Mileage 114-7, Que.	1	Gates	Pedestrian.
50177	26782-437	Nov. 26	1 50 p.m.	C.N.R.	Valleyfield, Blvd. du Havre, Alexandria St., Mileage 52-71, Que.	1	Unprotected.	Auto.
50236	26782-438	Nov. 21	8 50 p.m.	C.N.R.	Fortierville Station, 1st North of, Deschailions St., Mileage 10-32, Que.	1	Unprotected.	Auto truck.
50108	27148-5	Nov. 24	8 10 p.m.	C.N.R.	Sorel, Chemin de Ligne, Sorel St., Mileage 45-5, Que.	1	Unprotected.	Auto.
50106	27156-117	Nov. 19	8 09 p.m.	C.P.R.	Montreal West Station, 1st West of, Westmount St., Mileage 4-81, Que.	1	Unprotected.	Auto truck.
49985	27156-55	Nov. 5	5 45 p.m.	C.P.R.	Delson Station, 1st South of, Adirondack St., Mileage 94-55, Que.	1	Gates	Pedestrian.
50102	27156-294	Nov. 18	10 30 a.m.	C.P.R.	Pointe du Lac, Trois Rivières St., Mileage 72-59, Que.	1	Unprotected.	Auto.
50166	26982	Nov. 24	9 45 a.m.	C.P.R.	Three Rivers, St. Maurice St., Mileage 2-50 East Loop Line, Que.	3	Unprotected.	Auto truck.
50240	27156-32	Nov. 12	11 15 a.m.	C.P.R.	St. Johns, Jacques Cartier St., Adirondack St., Mileage 20, Que.	1	Unprotected.	Auto.
50283	27156-216	Nov. 30	2 00 p.m.	C.P.R.	Drummondville, St. Leon Street, Drummondville St., Mileage 58-3, Que.	2	Unprotected.	Auto.
50101	31329-1	Nov. 8	10 03 a.m.	C.V.R.	Iberville, South of, St. Armand St., Mileage 117-96, Que.	2	Unprotected.	Auto.
50109	27270-16	Nov. 13	8 54 a.m.	N.Y.C.	St. Stanislas Station, 1st North of, Highway No. 21, Que.	1	Unprotected.	Auto.
50056	26765	Nov. 2	2 30 p.m.	C.N.R.	Bronte, 1st West of, Oakville St., Mileage 25-68, Ont.	1	Unprotected.	Auto tractor truck
50079	588-38	Nov. 9	5 25 p.m.	C.N.R.	Toronto, Eastern Avenue, Oshawa Subdivision, Ont.	1	Double bell and wig-wags	Auto.
50199	26765-70	Nov. 16	5 07 a.m.	C.N.R.	Kirklehen Station, Strange St., Brampton St., Mileage 63-52, Ont.	1	Double bell and wig-wags	Autobus.
50241	26711-978	Nov. 26	12 30 a.m.	C.N.R.	Tara, Owen Sound Subdivision, Mileage 49-48, Ont.	1	Bell and wigwag.	Auto.
50203	43853	Nov. 24	2 35 p.m.	C.N.R.	Walkerton, North of, Southampton St., Mileage 23-05, Ont.	1	Unprotected.	Auto truck.

STATEMENT No. 18.—HIGHWAY CROSSING ACCIDENTS FOR THE YEAR ENDED DECEMBER 31, 1949 (cont.)

Inv. File	Board File	Date	Time	Railway	Place	Killed	Injured	Protection	Class of Accident
50204	26711-976	Nov. 5	9.33 a.m.	C.N.R.	Port Credit, Toronto St., Oakville Sd., Mileage 13-68, Highway No. 2, Ont.	—	1	Unprotected.	Auto.
50331	26765-125	Nov. 29	1.45 p.m.	C.N.R.	Meaford, Boucher St., Meaford Subdivision, Mileage 52-1, Ont.	—	2	Unprotected	Auto.
50214	3287	Nov. 24	11.13 p.m.	C.N.R.	Napanee, 1st West of, Gananoque Sd., Mileage 198-89 Ont.	—	1	Unprotected	Auto.
50227	26711-977	Nov. 7	6.05 p.m.	C.N.R.	Peterboro, Lakefield Subdivision, Mileage 32-1, Ont.	—	1	Unprotected	Auto.
50226	9437-315	Nov. 5	9.33 a.m.	C.N.R.	Maple, Richmond St., Newmarket Sd., Mileage 18-1, Ont.	1	1	Unprotected	Auto.
50144	9437-552	Nov. 29	12.10 a.m.	C.N.R.	London, Egerton St., Dundas Sd., Mileage 76-44, Ont.	—	2	Unprotected	Auto.
50136	26711-682	Nov. 4	6.25 p.m.	C.N.R.	Port Arthur, 2nd Ave., Lakeshore Terminals Sd., Mileage 1-21, Ont.	—	1	Unprotected.	Auto.
50070	26765-19	Nov. 11	10.05 p.m.	C.P.R.	Weston, Lawrence Ave., MacTier Sd., Mileage 3-7, Ont.	1	—	Double bell and wig-wags	Auto.
50078	37569	Nov. 11	6.55 a.m.	C.P.R.	Mount Dennis, Jane St., MacTier Subdivision, Mileage 3, Ont.	2	—	Double bell and wig-wags	Auto.
50228	Case 2786	Nov. 26	12.09 p.m.	C.P.R.	Peterboro, Aylmer St., Peterboro Sd., Mileage 24-48, Ont.	1	1	Watchman	Auto.
50145	9437-288	Nov. 23	6.58 p.m.	C.P.R.	London, Adelaide St., Galt Sd., Mileage 113-73, Ont.	—	1	Unprotected	Auto.
50080	26727-510	Nov. 9	10.52 a.m.	C.P.R.	Brampton, 2 miles North, Orangeville Sd., Mileage 9-4, Ont.	1	1	Unprotected	Auto.
50188	26727-570	Nov. 18	5.23 p.m.	C.P.R.	Glen Gordon, Cornwall Subdivision, Mileage 12-81, Ont.	1	—	Unprotected	Auto.
50155	26727-158	Nov. 16	4.47 p.m.	C.P.R.	Bolton, 2nd North of, MacTier Subdivision, Mileage 22-9, Ont.	—	2	Unprotected	Auto.
50141	26727-423	Nov. 9	2.40 a.m.	C.P.R.	Sudbury, Regent St., Cartier Sd., Mileage 80-15, Ont.	1	—	Unprotected	Pedestrian.
50108	Nov. 24	12.32 p.m.	L.E. & N.	Port Dover, Main St., Ont.	—	1	1	Unprotected	Auto.
50088	32086	Nov. 1	2.50 a.m.	C.N.R.	Roblin Station, 1st East, Togo Subdivision, Mileage 62-45, Man.	—	5	Unprotected	Auto.
50093	26744-16	Nov. 2	9.30 a.m.	C.N.R.	Elie Station, 1st West of, Gladstone Sd., Mileage 30-56, Man.	—	—	Unprotected	Auto.
50200	15978	Nov. 25	15.12 K.	C.P.R.	Winnipeg, Keewatin St., Carberry Subdivision, Mileage 3-1, Man.	2	—	Unprotected	Auto.
50251	27467-259	Nov. 19	11.15 K.	C.N.R.	Fredericton Subdivision, Mileage 39-62, Sask.	—	2	Unprotected	Auto.
50167	529-5	Nov. 17	9.09 K.	C.N.R.	Glenavon Subdivision, Mileage 54, Sask.	—	1	Unprotected	Auto.
50110	21705	Nov. 18	8.15 p.m.	C.N.R.	Edmonton, 102nd Avenue, and 126th St., Edmonton Terminal Sd., Mileage 0-58, Alta.	—	2	Unprotected	Auto.
50094	27811-225	Nov. 5	10.22 p.m.	C.P.R.	Bawlf Station, 1st West of, Wetaskiwin Sd., Mileage 53-41, Alta.	—	—	Unprotected.	Auto.
50051	27811-224	Nov. 3	1.55 p.m.	C.P.R.	Taber Station, 1st East, Taber Subdivision, Mileage 75-67, Alta.	3	—	Unprotected.	Auto.
50113	27811-178	Nov. 21	7.10 p.m.	C.P.R.	Mausell, 1st West of, Crownsnest Subdivision, Mileage 56-97, Alta.	—	1	Unprotected	Auto.
50112	30213-8	Nov. 6	2.50 a.m.	C.N.R.	Kamloops, Lorne St., Kamloops Subdivision, Mileage 3-28, B.C.	—	1	Unprotected	Auto.
50103	30213-69	Nov. 6	2.05 p.m.	C.N.R.	Municipality of Richmond, Bridgeport Road crossing, Mileage 10-73, Yale Subdivision, B.C.	—	5	Unprotected	Auto.
50242	27073-143	Nov. 22	18.15 K.	C.P.R.	Creston, Nelson Subdivision, Mileage 66-8, B.C.	—	2	Unprotected	Motorcycle.
50057	27073-94	Nov. 3	17.45 K.	C.P.R.	Grand Forks, 1-56 miles North, Boundary Subdivision, Mileage 95-3, B.C.	—	1	Unprotected	Auto.
50027	27073-134	Nov. 2	10.05 a.m.	C.P.R.	Coquitlam Station, 1st West of, Cascade Sd., Mileage 112-8, B.C.	—	1	Unprotected	Auto.
50026	27073-24	Nov. 2	10.55 p.m.	C.P.R.	Coquitlam Station, 1st East of, Shalghnessy St., Cascade Sd., Mileage 112-2, B.C.	—	1	Unprotected	Auto.
50352	27218-206	Dec. 27	10.30 a.m.	C.N.R.	Chester Subdivision, Mileage 22-74, N.S.	—	2	Unprotected	Auto.
50351	27218-4	Dec. 16	8.20 a.m.	C.N.R.	Chester Subdivision, Mileage 0-70, N.S.	—	2	Unprotected	Auto.

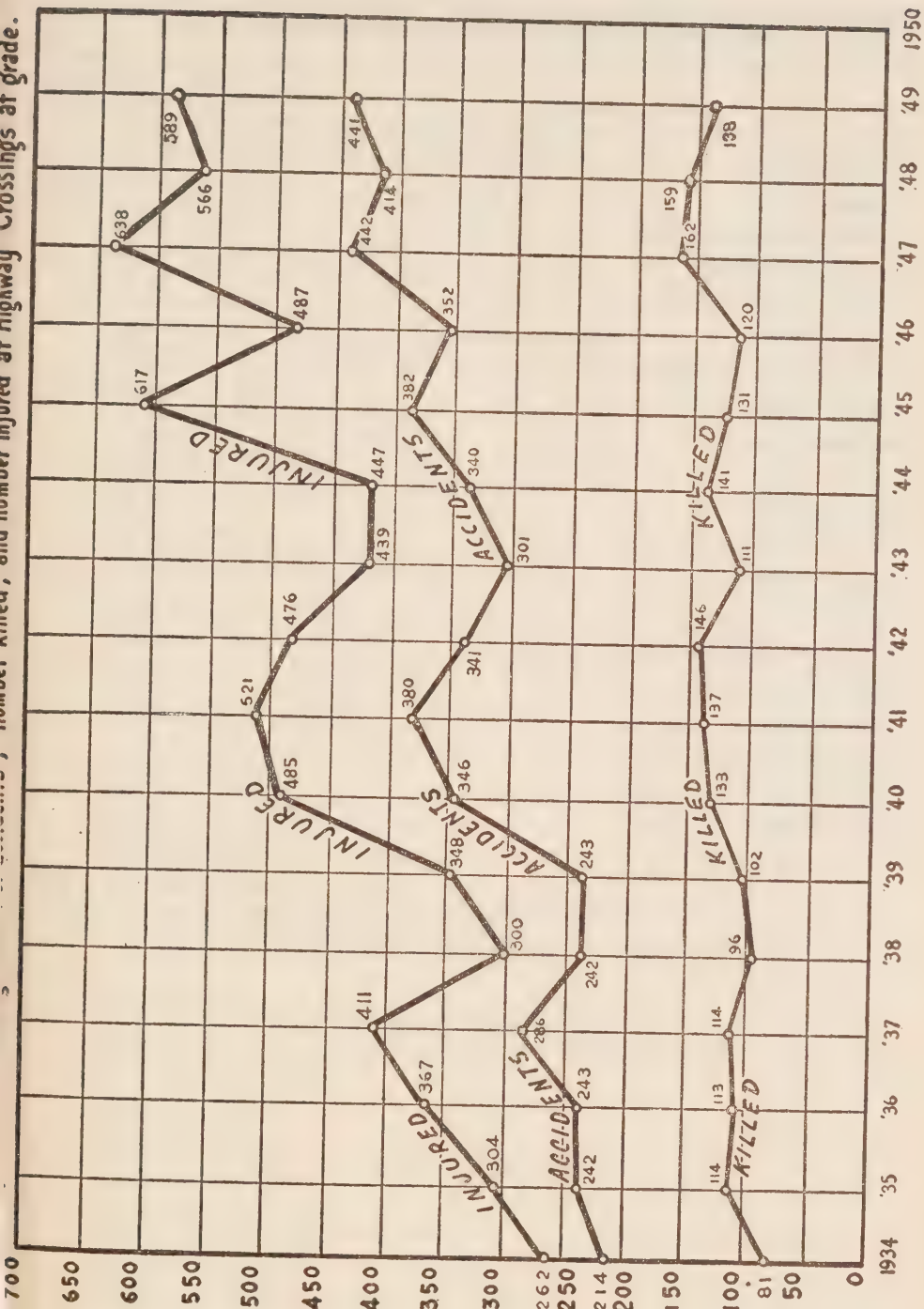
50337	27218-204	Dec. 8	11 45 a.m.	C.N.R.	Yarmouth Subdivision, Mileage 28-63, N.S.	1	Unprotected	Auto truck.
50350	27218-205	Dec. 7	10 20 a.m.	C.N.R.	Dartmouth Subdivision, Mileage 32, N.S.	1	Unprotected	Auto truck.
50350	33229-26	Dec. 18	6 45 p.m.	C.N.R.	Moncton, Robinson St., Springhill Subdivision, Mileage 124-41, N.B.	1	Double bell and wigwags	Auto.
50372	27401-90	Dec. 16	1 52 p.m.	C.P.R.	Grand Falls, Broadway St., Edmundston Sd., Mileage 18-78, N.B.	1	Unprotected	Auto truck.
50389	9437-323	Dec. 31	8 23 p.m.	C.N.R.	Valois, Valois Avenue, 1st East of Station, Cornwall Sd., Mileage 12-76, Que.	1	Bell and wigwag	Auto truck.
50235	35600-31	Dec. 11	4 15 a.m.	C.N.R.	St. Laurent, L'Assomption Sd., Mileage 41-71, Que.	1	Flashing light signal and bell	Auto.
50294	36600-17	Dec. 23	9 32 a.m.	C.N.R.	Montreal West, Metropolitan Blvd, L'Assomption Sd., Mileage 47-53, Que.	1	Flashing light signal and bell	Auto taxi.
50300	26782-439	Dec. 15	2 05 p.m.	C.N.R.	Premont Station, 1st East, Grand Mere Sd., Mileage 48-43, Que.	2	Unprotected	Auto truck.
50366	9437-1009	Dec. 24	12 55 p.m.	C.N.R.	Contrecoeur, Court St., 1st West of Station, Sherbrooke Subdivision, Mileage 25-60, Que.	2	Unprotected	Auto truck.
50243	27156-127	Dec. 5	9 45 a.m.	C.P.R.	West of Megantic, Megantic Subdivision, Mileage 2-9, Que.	1	Flashing light signal and bell	Auto truck.
50178	27156-182	Dec. 1	12 05 a.m.	C.P.R.	West Brome Station, 1st North, Newport Subdivision, Mileage 11-8, Que.	2	Unprotected	Auto.
50362	27156-238	Dec. 23	7 27 p.m.	C.P.R.	Farnham, Jacques Cartier St., Adirondack Sub., Mileage 6-4, Que.	2	Unprotected	Auto.
50420	9437-464	Dec. 20	11 25 p.m.	C.N.R.	Taxi'stock Station, 2nd East, Drumbo Sd., Mileage 23-62	2	Bell and wigwag	Auto.
50329	9188-124	Dec. 3	6 20 p.m.	C.N.R.	Sudbury, Kathleen St., Sudbury Terminals Sd., Mileage 5-8, Ont.	1	Flashing light signal and bell	Auto.
50275	26711-797	Dec. 10	3 10 p.m.	C.N.R.	Elmwood Station, 2nd North, Owen Sound Sd., Mileage 32-32, Ont.	2	Unprotected	Auto truck.
50287	26711-670	Dec. 7	7 20 a.m.	C.N.R.	Toronto, Keating St., at Booth Ave., Toronto Terminals Sd., Ont.	2	Unprotected	Auto.
50299	26711-729	Dec. 10	8 55 p.m.	C.N.R.	Ridgeway Station, 1st East, Dumville Sd., Mileage 8-88, Ont.	1	Unprotected	Auto.
50406	26711-980	Dec. 30	1 45 K.	C.N.R.	Fort William West, James Street, Ont.	1	Unprotected	Auto.
50357	9437-552	Dec. 31	6 40 p.m.	C.N.R.	London East, Eerton St., Dundas Sd., Mileage 76-44, Ont.	1	Unprotected	Auto.
50439	26711-983	Dec. 29	4 45 p.m.	C.N.R.	Ben Allen, 3rd North, Owen Sound Subdivision, Mileage 68-01, Ont.	1	Unprotected	Auto truck.
50440	26711-540	Dec. 30	6 15 p.m.	C.N.R.	London, Highbury Ave., Thorndale Sd., Mileage 30-19, Ont.	3	Unprotected	Auto.
50474	26765-171	Dec. 28	11 19 a.m.	C.N.R.	Cornwall, Marlboro St., 1st East of Station, Cornwall Subdivision, Mileage 67-21, Ont.	1	Unprotected	Auto.
50334	26711-946	Dec. 21	1 30 a.m.	C.N.R.	Garson Mine, 6 miles East of Sudbury Terminals Sd., Mileage 4-3, Ont.	1	Unprotected	Auto.
50348	26164	Dec. 4	6 30 p.m.	C.N.R.	Meadowside Station, 4 miles East, Alderdale Sd., Mileage 72-1, Ont.	1	Unprotected	Auto.
50410	26711-981	Dec. 6	12 50 p.m.	C.N.R.	Norftawa, 1 mile North, Allison Subdivision, Mileage 37-4, Ont.	2	Unprotected	Auto truck.
50330	26711-764	Dec. 14	10 51 p.m.	C.N.R.	Downsview, Sheppard Ave., DeHavilland's Crossing, Newmarket Subdivision, Mileage 10-4, Ont.	1	Unprotected	Auto.
50412	26711-87	Dec. 29	5 45 p.m.	C.N.R.	Lindsay Yard, Durham St., Haliburton Subdivision, Ont.	1	Unprotected	Auto.
50411	26727-63	Dec. 3	6 10 p.m.	C.P.R.	Sault Ste. Marie, John and Wellington Streets, Thessalon Subdivision, Mileage 131, Ont.	1	Unprotected	Auto.
50207	26766-19	Dec. 7	7 04 p.m.	C.P.R.	Weston, Lawrence Ave., MacTier Subdivision, Mileage 3-7, Ont.	1	Bell and wigwag	Pedestrian.
50333	26727-604	Dec. 21	6 37 p.m.	C.P.R.	Sudbury, Martindale Road, Webbwood Subdivision, Mileage 2, Ont.	2	Double bell and wigwags	Auto.
50413	26727-605	Dec. 24	4 15 p.m.	C.P.R.	Havelock, Havelock Subdivision, Mileage 93-1, Ont.	1	Unprotected	Auto truck.

STATEMENT No. 18.—HIGHWAY CROSSING ACCIDENTS FOR THE YEAR ENDED DECEMBER 31, 1949 (cont.)

Inv. File	Board File	Date	Time	Railway	Place	Killed	Injured	Protection	Class of Accident
50391	26727-471	Dec. 30	7.37 a.m.	C.P.R.	Alliston, 4 miles North, MacTier Subdivision, Mileage 49, Ont.	—	1	Unprotected	Auto truck.
50206	27929-72	Dec. 6	6.00 p.m.	C. & O.	St. Thomas Junction, ½ mile West, Subdivision No. 1, Mileage 126, Ont.	—	1	Unprotected	Auto.
50298	1774	Dec. 7	7.45 p.m.	C. & O.	Leamington, Erie St., Subdivision No. 1, Mileage 37.95, Ont.	—	4	Unprotected	Auto.
50365	35460-14	Dec. 21	9.05 a.m.	G.R.R.	Kitchener, Ottawa St., Ont.	—	1	Unprotected	Auto truck.
50250	9437-831	Dec. 2	2.15 a.m.	M.C.R.	Niagara Falls, Clifton Hill Road, Victoria Park Sd., Ont.	—	3	Flashing light and bell	Auto.
50356	26744-119	Dec. 23	22.27 K.	C.N.R.	Neepawa, Main St., Neepawa Subdivision, Man.	—	1	Unprotected	Auto truck.
50357	26744-119	Dec. 19	15.00 K.	C.N.R.	Neepawa, Main St., Neepawa Subdivision, Man.	—	1	Unprotected	Auto.
50375	27365-164	Dec. 22	18.05 K.	C.P.R.	Bredbury Subdivision, Mileage 9.5, Man.	—	1	Unprotected	Auto truck.
50225	25293	Dec. 2	10.45 p.m.	C.N.R.	North Barleford, 2nd East of Station, Langham Sd., Mileage 60.9, Sask.	—	1	Unprotected	Auto.
50407	27467-162	Dec. 24	17.02 K.	C.N.R.	Prince Albert, 14th St. West and 2nd Ave., West, Blaine Lake Subdivision, Sask.	—	2	Unprotected	Auto.
50408	9437-1142	Dec. 15	21.35 K.	C.N.R.	Prince Albert, 14th Ave. West, Duck Lake Subdivision, Sask.	—	1	Unprotected	Auto truck.
60445	28786-53	Dec. 31	16.30 K.	C.N.R.	Bruderheim, Vancouver Subdivision, Mileage 99, Alberta	—	2	Unprotected	Auto.
50489	25786-80	Dec. 29	19.44 K.	C.N.R.	Concordia, Leduc Subdivision, Mileage 4.32, Alta.	2	1	Unprotected	Auto truck.
50202	27811-40	Dec. 2	8.30 p.m.	C.P.R.	Oroville Station, 2nd North, Macleod Sd., Mileage 25-67, Alta.	3	1	Bell and wigwag	Auto.
50312	18047	Dec. 16	8.15 p.m.	C.P.R.	Bittern Station, 1st West, Wetaskiwin Sd., Mileage 80.56, Alta.	—	1	Unprotected	Auto.
50253	28786-71	Dec. 9	12.20 a.m.	C.P.R.	Edmonton, 104th St., and 85th Ave., Leduc Sd., Mileage 97.28, Alta.	—	1	Unprotected	Auto.
50252	28786-71	Dec. 8	7.45 a.m.	C.P.R.	Edmonton, 104th St., and 85th Avenue, Leduc Sd., Mileage 97.28, Alta.	—	1	Unprotected	Auto.
50432	31574-81	Dec. 16	5.45 p.m.	N.A.R.	Dawson Creek Station, 1st West of Grande Prairie Subdivision, Mileage 138.69, Alberta	—	1	Unprotected	Auto.
50402	27073-40	Dec. 24	18.33 K.	C.P.R.	Kamloops, 3rd Ave., Thompson Subdivision, Mileage 0-1, B.C.	1	—	Unprotected	Auto.
50382	28844	Dec. 21	19.25 K.	B.C.E.	Vancouver, Heather St., B.C.	—	1	Unprotected	Auto.
50381	30051-8	Dec. 20	12.40 K.	B.C.E.	Cumby Road Crossing, Mun., of Richmond, B.C.	—	2	Unprotected	Autobus.
Total Accidents.....						138	589		

Total Accidents..... 441

... .. number killed, and number injured at grade.



TRANSPORT COMMISSIONERS OF CANADA

STATEMENT No. 19.—NUMBER OF FREIGHT CARS INSPECTED, SHOWING CARS DEFECTIVE, FOR THE YEAR ENDED DECEMBER 31, 1949

Railway	Cars Inspected	Cars Defective
Canadian National.....	18,207	1,309
Canadian Pacific.....	15,759	1,251
Algoma Central and Hudson Bay.....	65	4
British Columbia Electric.....	35	4
Canadian Industries Limited.....	20	—
Chesapeake & Ohio.....	139	6
Cumberland Rly. & Coal Company.....	1	—
Dominion Atlantic.....	35	2
Esquimalt & Nanaimo.....	90	6
Essex Terminal.....	20	5
Michigan Central.....	500	10
New York Central.....	25	2
Highway Oil Refineries.....	18	18
Imperial Oil Company.....	40	14
McColl-Frontenac Oil Company.....	7	3
North Star Oil Company.....	100	14
Radio Oil Refinery.....	4	4
Quebec Railway Light and Power.....	15	1
Sydney and Louisburg.....	35	4
Toronto, Hamilton and Buffalo.....	185	4
Totals	35,300	2,661

STATEMENT No. 20.—DEFECTIVE SAFETY APPLIANCES ON FREIGHT CARS REPORTED
BY THE BOARD'S INSPECTORS FOR THE YEAR ENDED DECEMBER 31, 1949*Coupler and Parts* including:

- Broken or worn coupler.
- Guard arm short.
- Knuckle broken, worn or missing.
- Knuckle pin broken, worn, bent or missing.
- Lock block broken, worn, bent, missing or inoperative.

(Defects 170)

Height of Couplers including:

- Coupler too high.
- Coupler too low.
- Coupler tie straps loose or missing.
- Carrier irons worn, loose or broken.
- Carrier nuts and bolts broken or missing.

(Defects 213)

Truck and Spring Defects including:

- Body or truck frictions broken, loose or missing.
- Central castings worn, broken or loose.
- Truck springs broken or missing.

(Defects 542)

Uncoupling Mechanism including:

- Uncoupling levers broken, bent or loose.
- Uncoupling lever incorrectly applied.
- Uncoupling links broken, loose or missing.
- Uncoupling link kinked and not operative.
- Uncoupling lever brackets broken, bent or loose.
- Uncoupling levers non-standard.

(Defects 92)

Handholds including:

- Handholds broken, bent, loose or missing.
- Handholds incorrectly applied.

(Defects 301)

Sill Steps including:

- Sill steps broken, bent, loose or missing.
- Sill steps incorrectly applied.

(Defects 154)

Ladders including:

- Ladders bent, loose or missing.
- Ladders incorrectly applied.
- Ladder round broken, bent, loose or missing.

(Defects 216)

Running Boards including:

- Running boards broken, loose or missing.
- Running boards incorrectly applied.
- Running boards with non standard end clearance.
- Broken or loose end or side fascia boards.
- Holes in decking of flat and open-top cars.

(Defects 1,184)

Handbrakes including:

- Defective brakemast, pawls, dogs, ratchet wheels, brake chains and rods, brake pulley wheels, brake wheels or levers.
- Non standard clearance brakemast wheels, including load fouling brakemast wheel.

(Defects 490)

Air Brakes including:

- Cylinders and triple valve not cleaned within A.R.A., limit of cleaning.
- Cylinder and triple valve not stencilled with date of cleaning.
- Brakes cut out.

(Defects 177)

All Air Brake Defects including:

- Triple valve defective.
- Reservoir defective.
- Cylinder defective.
- Cut-out cock defective.
- Release cock defective.
- Release rod defective.
- Angle cock defective.
- Train pipe defective or loose.
- Train pipe clamps missing.
- Hose defective.
- Hose gasket defective.
- Retaining valve defective or missing.
- Retaining pipe defective or missing.

(Defects 153)

Side Doors, etc. including:

- Side doors loose and protruding from side of cars.
- Miscellaneous.

(Defects 535)

Total defects 4,227

TRANSPORT COMMISSIONERS OF CANADA

STATEMENT No. 21.—NUMBER OF LOCOMOTIVES INSPECTED, AND NUMBER OF DEFECTS ON RAILWAYS, FOR THE YEAR ENDED DECEMBER 31, 1949

Classification	Total Defects
Air Compressor.....	31
Arch Tubes.....	6
Ashpans or Mechanism.....	2
Axles.....	4
Blow-off Cocks.....	81
Boiler Checks.....	16
Boiler Shell.....	32
Brake Equipment.....	92
Cabs, or Cab Windows.....	28
Cap Aprons or Decks.....	18
Cab Cards.....	6
Coupling or Uncoupling Devices.....	9
Crossheads, Guides, Pistons or Piston Rods.....	61
Cylinders, Saddles or Steam Chests.....	9
Cylinder Cocks or Rigging.....	1
Domes or Dome Caps.....	6
Draft Gear.....	81
Draw Gear.....	25
Driving Boxes, Shoes, Wedges or Pedestals.....	77
Firebox Sheets.....	14
Flues.....	6
Frames, Tail Pieces or Braces, Locomotive.....	37
Frames, Tender.....	5
Gauges or Gauge Fittings, Air.....	15
Gauges, Steam.....	56
Gauge Cocks.....	18
Grate Shakers and Firedoors.....	4
Handholds.....	59
Injectors inoperative.....	4
Injectors and Connections.....	74
Inspections or Tests not made as required.....	14
Lateral Motion.....	77
Lights, Cab or Classification.....	10
Lights, headlight.....	4
Lubricators and Appurtenances.....	5
Mudrings.....	5
Packing Nuts.....	7
Packing, Piston Rod and Valve Stem.....	7
Pilot or Pilot Beams.....	17
Plugs or Studs.....	8
Reversing Gear.....	11
Rods, Main and Side, Crank Pins or Collars.....	13
Safety Valves.....	14
Sanders.....	33
Springs or Spring Rigging.....	258
Staybolts.....	10
Staybolts Broken.....	2
Steam Pipes.....	39
Steam Valve.....	107
Steps.....	50
Tender.....	68
Throttle or Dry Pipes.....	47
Trucks, Engine.....	35
Trucks, Tender.....	77
Valve Motion.....	18
Washout Plugs.....	64
Train Control.....	1
Water Glass, Fittings or Shields.....	94
Wheels.....	145
Miscellaneous.....	15
Compliance with G.O. 415.....	1
Fire Protective Appliances.....	294
Total Defects.....	2,427

	Locomotives Inspected
Canadian National.....	3,931
Canadian Pacific.....	3,524
Miscellaneous.....	718
Total.....	8,173

STATEMENT No. 21A.—STATEMENT OF BOILER EXPLOSIVES AND CROWN SHEETS DAMAGED FOR THE YEAR 1949

Railway	Date	Engine No.	Place	Remarks
Canadian Pacific	March 21	CP 907	<i>Boiler Explosions</i> Brookmere, British Columbia	Crown sheet dropped due to low water while locomotive in engine shed
Canadian National	January 22	CN 1335	<i>Crown Sheets Damaged</i> Fort Rouge, Manitoba	Evidence of low water.
Canadian National	February 2	CN 2104	Tyup, British Columbia	Cab of engine caught fire as a result of tank car mishap. Water level dropped allowing water off crown.
Canadian National	April 18	CN 2549	Toronto, Ontario	Fire lit while boiler empty.
Canadian National	September 18	CN 1284	Winnipeg, Man., to Neepeawa, Ont.	Shortage of water while en route.
Canadian National	October 1	CN 2110	Tyup, British Columbia	Water allowed to become low while engine on shop track.
Canadian National	November 19	CN 2637	Dolbeau, Quebec	Watchman allowed water to become low.
Canadian National	December 5	CN 7501	Leaside, Ontario	Watchman fell asleep, allowing water to drop below crown.
Northern Pacific	January 17	NP 2158	Fort Rouge, Manitoba	Fire lit while water low in boiler.
SUMMARIES				
<i>Boiler Explosions</i>				
Canadian Pacific				1
<i>Crown Sheets Damaged</i>				
Canadian National				7
Northern Pacific				1
Total				8

STATEMENT No. 22. — SUMMARY OF REPORTS ON FIRES IN FOREST SECTIONS ORIGINATING WITHIN 300 FEET OF TRACK ALONG RAILWAY LINES UNDER THE JURISDICTION OF THE BOARD SEASON OF 1949

	Canadian National (Atlantic Region) (a)	Canadian National (Central Region)	Canadian National (Western Region)	Canadian Pacific (Eastern Region) (b)	Canadian Pacific (Prairie Region)	Canadian Pacific (Pacific Region) (c)	Algoma Central and Hudson Bay Rly.	Northern Alberta Railways	Great Northern Railway	Miscellaneous Railways (d)	Totals
<i>Fires of Railway Origin—</i>											
<i>Number by causes—</i>											
Locomotive, Class A fires.....	67	23	9	14	4	81	3	4	1	1	207
Locomotive, Class B fires.....	27	30	24	46	27	54	1	2		5	216
Locomotive, Class C fires.....	7	3	4	13	10	3		4			44
Employee, Class A.....	1	2	3	1		1					8
Employee, Class B.....	2	6	4	7		3	1	2			25
Employee, Class C.....		1		1		1		1			4
Total, Class A fires.....	68	25	12	15	4	82	3	4	1	1	215
Total, Class B fires.....	29	36	28	53	27	57	2	4		5	241
Total, Class C fires.....	7	4	4	14	10	4		5			48
Total, all railway fires.....	104	65	44	82	41	143	5	13	1	6	504
<i>Areas burned (acres)—</i>											
Young forest growth.....	235	71	38	674	1,184	4		5		1	2,212
Merchantable timber.....	47	37	14	58	498	4					658
Slashing or old burn.....	63	45	7	110	26	2		230			483
Other classes of land.....	250	221	396	269	1,398	208	12	72		4	2,880
Total.....	595	374	455	1,111	3,106	218	12	307		5	6,183
<i>Value of property destroyed—</i>											
Young forest growth.....	\$ 460	\$ 135	\$ 84	\$ 286	\$ 1,025	\$ 18		\$ 40	\$	\$	\$ 2,051
Standing timber.....	114	242	37	444	531	1	1				1,360
Forest products.....	2					72					74
Other property.....	100	1,143	400	416		1,362			150		3,571
Total.....	676	1,520	521	1,146	1,556	1,453		40	150	3	7,063
<i>Known Causes other than Railway—</i>											
<i>Number by causes—</i>											
Campers and Travellers, Class A fires.....	24	8	1	6		7	1				47
Campers and Travellers, Class B fires.....	2	8	5	12	2	1		1			31
Campers and Travellers, Class C fires.....			1	1							2
Settlers, Class A fires.....			1								1
Settlers, Class B fires.....			1								1
Settlers, Class C fires.....				1							1
Other known causes, Class A fires.....	1	1		1		5					8
Other known causes, Class B fires.....	2		1	1		2					6
Other known causes, Class C fires.....			1	1		1					3

Total, Class B.....	29	4	9	2	7	12	1	56
Total, Class C.....			8	7	2	3	1	38
Total.....			1	2	2	1		6
<i>Areas burned (Acres).—</i>								
Young forest growth.....	29	18	11	22	2	16	1	100
Merchantable timber.....			5	7		2		361
Slashing or old burn.....			2	65	1			3
Other classes of land.....	4	17	59	117	1	21		67
Total.....	4	24	133	462	2	23	2	219
<i>Value of property destroyed.—</i>								650
Young forest growth.....	\$.....	\$ 10	\$ 3	\$ 890	\$.....	\$ 26		929
Standing timber.....			28					28
Forest products.....	104			112		625		729
Other property.....		20				10		142
Total.....	104	30	31	1,002		661		1,828
<i>Fires of Unknown Origin—</i>								
Number—								
Class A.....	6	1	2	5				16
Class B.....	3	1	2	4			1	10
Class C.....			1	2				3
Total.....	9	2	5	11			1	29
<i>Areas burned (acres).—</i>								
Young forest growth.....				1,450				1,450
Merchantable timber.....			1					1
Slashing or old burn.....			20	10				30
Other classes of land.....	5	2	3	21				31
Total.....	5	2	24	1,481				1,512
<i>Value of property destroyed—</i>								
Young forest growth.....	\$.....	\$.....	\$.....	\$ 2,900	\$.....	\$.....	\$.....	\$ 2,900
Standing timber.....			6					6
Forest products.....			1					1
Other property.....	100	12		62				174
Total.....	100	12	7	2,962				3,081

(a) Includes Province of Newfoundland. (b) Includes Dominion Atlantic Railway. (c) Includes Esquimalt and Nanaimo Railway.
 (d) Includes the following lines:—Cumberland Railway and Coal Co.; Maritime Coal, Railway and Power Co.; Sydney and Louisburg; Temiscouata.

NOTE.—No fires were reported during 1949 as originating within 300 feet of track in forest sections along the following lines:—

Maine Central; Nipissing Central; Quebec Central; Spokane International; White Pass and Yukon.

Class A fires are those which cover an area less than one-fourth acre, regardless of amount of damage.

Class B fires are those which cover an area of one-fourth acre to ten acres.

Class C fires are those which cover an area over ten acres.

STATEMENT No. 23.—SUMMARY OF FIRES OF RAILWAY ORIGIN IN FOREST SECTIONS, CLASSIFIED BY CAUSES, SEASON OF 1949

Cause of Fire	Number of Fires				Forest Land Burned				Non-Forest Land Burned		Damage to Forest Products	Damage to Other Property	Grand Totals			
	Class			Total	Per cent	Acres	Per cent	Damage	Per cent	Acres			Per cent	Area Acres	Per cent	Damage
	A	B	C													
Locomotive.....	207	216	44	467	92.66	1,346	97.47	3,349	97.92		74	3,316	3,705	87.98	6,739	85.39
Employee.....	8	25	4	37	7.34	35	2.53	71	2.08			255	506	12.02	326	4.61
Total.....	215	241	48	504	100.00	1,381	100.00	3,420	100.00		74	3,571	4,211	100.00	7,065	100.00

Class A fires are those which cover an area less than one-fourth acre, regardless of amount of damage.

Class B fires are those which cover an area of one-fourth acre to ten acres.

Class C fires are those which cover an area over ten acres.

STATEMENT No. 24.—SUMMARY OF REPORTS OF FIRES IN FOREST SECTIONS ORIGINATING WITHIN 300 FEET OF TRACK ALONG RAILWAY LINES UNDER THE JURISDICTION OF THE BOARD, SEASON OF 1949, SHOWING BY PROVINCES THE NUMBER OF FIRES, AREAS BURNED AND VALUE OF PROPERTY DESTROYED, BY CLASSIFIED CAUSES

Province	Fires of Railway Origin				Known Causes other than Railway				Fires of Unknown Origin			
	Forested Mileage	Per cent for Prov.	No. of Fires	Per cent for Prov.	Value \$	Per cent for Prov.	No. of Fires	Per cent for Prov.	Value \$	Per cent for Prov.	No. of Fires	Per cent for Prov.
Newfoundland.....	566	3.86	66	13.09	183	1.78	20	20.00	250	13.68	4	13.79
Nova Scotia.....	936	6.39	29	5.75	681	5.48	5	5.00	104	5.69	4	13.79
New Brunswick.....	1,142	7.80	29	5.75	339	8.54	4	4.00	762	41.68	2	6.90
Quebec.....	1,902	12.99	30	5.95	1,010	14.30	13	13.00	329	50.62	8	27.59
Ontario.....	4,507	30.77	147	29.17	1,840	26.04	31	31.00	20	1.09	5	17.24
Manitoba.....	1,128	7.70	12	2.38	1,621	22.94	2	2.00	31	1.70	1	3.45
Saskatchewan.....	375	2.56	7	1.39	16	0.23	1	1.00	15.38	.....	3	10.34
Alberta.....	847	5.78	26	5.17	64	0.91	3	3.00	3.39	.....	2	6.90
British Columbia.....	3,158	21.75	158	31.35	1,650	23.35	21	21.00	661	36.16	.....	.....
Yukon Territory.....	58	.40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	14,646	100.00	504	100.00	7,065	100.00	100	100.00	1,828	100.00	29	100.00

APPENDIX "F"

February 15, 1950.

MEMO TO:

Mr. P. F. BAILLARGEON,
Secretary,
Board of Transport Commissioners,
OTTAWA.

Submitted herewith is the Bureau's portion of the annual report of the Board for the year ended December 31, 1949.

Yours very truly,

G. A. SCOTT,
Director.

BUREAU OF TRANSPORTATION ECONOMICS

Establishment and Function

During the third year of the Bureau's existence its primary duties, as outlined in the 1948 report, remained unchanged; there has been general adherence to the original plan for consolidation of transport economics under one central co-ordinating agency. The Bureau's main function consists of supplying the Board with the results of economic studies in the general transportation field and with reports on the economic aspects of the cases submitted to the Board for determination. Similar duties with respect to air transportation are undertaken for the Air Transport Board and, on occasion, for other government departments. During 1949 the time of the Bureau was divided 60% for the Board of Transport Commissioners, 30% for the Air Transport Board and 10% for other Government departments where transportation problems arose. This may be compared with corresponding divisions of 41%, 58% and 1% in 1947 and 50%, 46% and 4% in 1948.

As of December 31, 1948, the establishment called for a staff of 41, although only 38 were on strength. At year end, 1949, there were two unfilled positions and a total establishment of 45.

Railways

The railway waybill analysis undertaken in 1948 was continued throughout the year. The movements of approximately 100,000 carload and less-than-carload shipments were classified and tabulated, and preliminary analyses derived from these tabulations have been made.

Various aspects of the accounting, financial and statistical matters of railways were the subject of further study and investigation. In addition thereto, special reports dealing with maintenance, passenger and freight expenses, railway terminal costs, diesel locomotives, agreed charges, abandonments, revenue sources and depreciation were undertaken. The collection, auditing and tabulation of financial and statistical data of the railways was continued and monthly, quarterly and annual reports were issued. The Maximum Carloading Order Report was discontinued but the Freight Car Additions and Retirements Report was issued monthly.

A preliminary tabulation of Canadian railway reports for 1949 indicates total revenues amounting to \$897,875,246 as compared with \$875,833,590 for 1948; an increase of \$22,041,656, or 2.52%. During the same period operating

TRANSPORT COMMISSIONERS OF CANADA

expenses amounted to \$835,812,159, a 3.43% increase over the 1948 total of \$808,127,528. The resulting net operating revenue is indicated as being \$62,063,087; a decrease of 8.34% vis-a-vis 1948. A summary tabulation of railway statistics since 1938 shows the following relationships:

Year	Operating Revenues	Operating Expenses	Net Operating Revenue	Operating Ratio	Revenue Freight Ton-Miles	Revenue Passenger Miles
	\$	\$	\$	\$	(000)	(000)
1938.....	336,833,400	295,705,638	41,127,762	87.8	26,834,697	1,783,178
1939.....	367,179,095	304,373,285	62,805,810	82.9	31,464,991	1,751,973
1940.....	429,142,659	335,287,503	93,855,156	78.1	37,898,196	2,176,468
1941.....	538,291,947	403,735,542	134,558,405	75.0	49,982,467	3,205,542
1942.....	663,610,570	485,783,584	177,826,986	73.2	56,153,953	4,980,296
1943.....	778,914,565	560,597,204	218,317,361	72.0	63,915,074	6,525,064
1944.....	796,636,786	634,774,021	161,862,763	79.7	65,928,079	6,873,188
1945.....	774,971,360	631,497,562	143,473,798	81.5	63,349,095	6,380,155
1946.....	718,501,764	623,529,473	94,972,292	86.8	55,310,308	4,648,558
1947.....	785,177,920	690,281,049	94,356,871	88.0	60,143,035	3,732,777
1948.....	875,833,590	808,127,528	67,706,062	92.3	59,408,930	3,660,646
1949 (Est.).....	897,875,246	835,812,159	62,063,087	93.1	57,447,448	3,416,915

Airways

The principal Bureau functions with respect to commercial air services have been to collect, tabulate, and analyse the reports of the air carriers. Monthly and annual reports summarizing the operations of the different classes of carriers are prepared, together with special individual annual reports on the large operators. Airport statistics covering the activities of many of Canada's airports are also collected by the Bureau.

Among the principal studies finalized during the year for the Air Transport Board were a survey of charter operators which had been commenced in 1948 and several analyses of the mail payments made to both Canadian and Foreign air carriers. Two other major projects completed were a study of secondary air services and an analysis of prospective air coach operations.

The Bureau is also responsible for the preparation of reports on Canadian aviation activities for the International Civil Aviation Organization and of detailed summaries of the traffic of the Canadian scheduled air carriers. The joint Canadian-American airline traffic survey was continued throughout the year. A statistical summary showing the trend of development of the Canadian air transportation industry in the post-war period is shown hereunder.

—	1946	1947	1948	1949 (Est.)
Operating Revenues.....\$	21,987,989	26,834,086	33,712,329	39,061,261
Operating Expenses.....\$	22,777,441	29,321,490	34,799,670	40,302,101
Net Operating Revenue.....\$	Dr. 789,452	Dr. 2,487,404	Dr. 1,087,341	Dr. 1,240,844
Revenue Passengers.....No.	607,964	693,560	880,407	991,021
Revenue Goods.....Tons	11,232	15,039	15,973	14,761
Revenue Mail.....Lbs.	4,915,630	5,908,775	8,893,682	12,274,751
Total Load Ton-Miles.....	23,955,227	29,449,044	39,780,289	47,846,311

Waterways

A waterways waybill study of the traffic moving on the Mackenzie River System during the navigation season of 1949 was completed late in the year. Approximately 16,500 waybills were received from the reporting companies.

These were classified, tabulated, and analyzed to provide a complete picture of the traffic on the river system during the season. In addition to the waybill analysis an economic survey of water operations on the Mackenzie River System was prepared.

Other water transportation projects included a report on water services on the Great Lakes and analyses of the financial reports of water carriers.

Pipe Lines

Pursuant to an Act respecting Oil or Gas Pipe Lines assented to April 30, 1949, a preliminary classification of accounts for pipe line operations was prepared.

Outside Government Departments

In addition to the foregoing, work was undertaken for other Government Departments and Agencies, including the Departments of Transport, Mines and Resources, Finance, External Affairs, Trade and Commerce, and the Royal Commission on Transportation.

BUREAU OF TRANSPORTATION ECONOMICS,
February 15, 1950.

APPENDIX "G"

STATEMENT SHOWING TOTAL NUMBER OF APPLICATIONS MADE TO THE BOARD UNDER THE VARIOUS SECTIONS OF THE RAILWAY ACT, ALSO COMPLAINTS AND REPORTS FILED, FOR THE YEAR ENDED DECEMBER 31, 1949

Sections of the Railway Act	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Rescinding of Orders, Sec. 34.....	0	0	0	0	1	0	1	0	1	0	0	0	3
Appeals to Supreme Court, Sec. 52.....	0	0	0	0	0	0	0	0	0	1	0	0	1
Traffic Agreements.....	1	0	0	0	0	1	1	1	0	0	0	0	2
Gas and Gasoline pipes, Sec. 162.....	0	0	0	0	0	1	1	1	0	0	0	0	3
Deviations, Changes and Removals, Sec. 165A.....	0	0	0	0	1	0	1	0	0	0	0	1	3
Railways as constructed, Sec. 175.....	0	0	0	0	0	1	0	1	0	0	0	0	3
Removal of Stations, Sec. 179.....	0	0	0	0	0	0	3	0	0	0	0	0	6
Branch line, Secs. 180-7.....	0	0	0	0	0	0	0	0	0	0	0	0	1
Removal industrial Spurs, Secs. 187, 398.....	0	0	0	0	0	0	0	0	0	0	1	0	1
Station Buildings, Sec. 188.....	3	2	2	1	3	8	3	2	2	1	4	1	30
Station Agents, Sec. 188.....	0	0	5	0	3	1	2	2	1	1	2	2	19
Station Accommodation, Sec. 188.....	0	0	0	0	0	0	0	0	0	1	1	0	4
Operation of trains over sidings, Sec. 193.....	0	2	3	0	0	2	0	3	0	1	1	0	12
Mining under or within yards of Railways, Sec. 196.....	0	0	0	0	0	1	0	2	0	0	0	0	3
Viaducts, Secs. 249-51.....	0	1	1	0	0	1	0	0	1	0	0	0	4
Stations, Freight Sheds destroyed by fire.....	0	1	0	0	1	0	0	0	1	1	0	0	4
Subways, Secs. 249-51.....	0	3	1	6	3	5	1	0	3	2	2	0	28
Bridges, Secs. 249-51.....	4	9	29	8	12	6	9	10	9	15	10	13	134
Clearances, Secs. 250-1.....	1	1	3	1	2	3	9	1	2	2	6	2	33
Interlocking Appliances, Secs. 252-4.....	5	2	4	1	2	1	1	2	0	0	3	1	22
Highway Crossings, Sec. 256.....	21	15	21	23	18	32	23	20	14	20	23	17	247
Protection at Crossings, Sec. 257.....	25	49	18	11	21	17	22	14	24	13	14	16	244
Ditches, Drains, Sec. 263.....	0	0	0	0	1	1	0	0	0	1	0	0	3
Culverts, Sec. 269.....	0	0	0	0	0	1	0	0	1	0	0	0	3
Sewers, Sec. 269.....	0	0	0	0	1	1	0	0	1	0	0	0	3
Farm and Private crossings, Secs. 272-3.....	1	1	4	6	6	1	6	2	4	1	1	2	35
Cattle guards, pass, Fencing, Sec. 274.....	0	1	1	6	1	0	2	2	2	0	2	2	12
Opening for Traffic, Sec. 276.....	0	0	0	0	1	0	0	1	0	1	0	0	3
Accident reports, Sec. 286.....	78	54	52	51	53	38	46	52	54	68	63	66	675
By-Laws, to G-in-C for approval, Sec. 293.....	0	0	0	0	0	0	0	1	0	0	0	0	1
Rolling Stock, Secs. 298, 301.....	1	0	0	0	0	0	0	0	0	0	1	0	2
Adjustment in Rates.....	1	0	4	2	0	0	0	0	0	0	1	0	8
Train Service, Secs. 302-4.....	1	1	4	1	1	1	1	1	0	1	1	1	14
Whistling by Locomotives, Sec. 308.....	0	0	1	1	1	0	1	7	2	1	3	2	7
Accommodation for Traffic, Secs. 312-3.....	3	0	2	3	0	2	1	1	12	1	0	0	36
Equality as to tolls, Sec. 314.....	0	0	0	0	0	0	0	1	0	0	0	1	1
Freight Classification, Sec. 322.....	0	0	0	0	0	0	0	1	0	0	0	0	1
Filing of Tariffs, Secs. 323-7.....	1	1	1	0	0	0	0	0	0	0	0	0	1
Disallowance of Tariffs, Sec. 325.....	2	1	1	0	1	2	0	0	0	0	0	0	7

APPENDIX "H"

GENERAL ORDER No. 722

In the matter of the application of The Railway Association of Canada for approval of revised regulations for the transportation of explosives and other dangerous articles by freight, and specifications for shipping containers: File No. 1717.

FRIDAY, the 21st day of January, A.D., 1949.

Hon. Mr. Justice M. B. ARCHIBALD, *Chief Commissioner.*

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

J. A. STONEMAN, *Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Upon the report and recommendation of the Director of Operation of the Board—

IT IS ORDERED

1. That, effective March 1, 1949, the said revised regulations for the transportation of explosives and other dangerous articles by freight, and specifications for shipping containers, on file with the Board under file No. 1717 marked "B" and certified by the Secretary of the Board, be, and they are hereby, authorized for the observance of the railway companies subject to the jurisdiction of the Board which accept explosives and other dangerous articles for carriage.

2. That, upon the coming into effect of the said regulations, the following General Orders of the Board be, and they are hereby, rescinded.

General Order No. 598, dated October 11, 1940.

General Order No. 604, dated June 25, 1941.

General Order No. 606, dated September 26, 1941.

General Order No. 608, dated October 24, 1941.

General Order No. 609, dated November 6, 1941.

General Order No. 611, dated November 14, 1941.

General Order No. 670, dated March 3, 1945.

General Order No. 677, dated November 29, 1945.

General Order No. 679, dated December 31, 1945.

General Order No. 682, dated April 2, 1946.

General Order No. 686, dated May 20, 1946.

General Order No. 687, dated June 21, 1946.

General Order No. 691, dated September 6, 1946.

General Order No. 693, dated October 7, 1946.

General Order No. 694, dated October 26, 1946.

General Order No. 698, dated January 23, 1947.

General Order No. 702, dated October 28, 1947.

General Order No. 709, dated February 19, 1948.

M. B. ARCHIBALD,
Chief Commissioner.

GENERAL ORDER No. 723

In the matter of regulations respecting the installation of automatic block signal systems of all types, operation by signal indication, or centralized traffic control.

File No. 45417

THURSDAY, the 7th day of April, A.D. 1949.

Hon. Mr. Justice M. B. ARCHIBALD, *Chief Commissioner.*

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

It is ordered that the following regulations respecting the installation of automatic block signal systems of all types, operation by signal indication, or centralized traffic control be, and they are hereby prescribed for the observance of every railway company within the legislative authority of the Parliament of Canada:

1. Without the approval of the Board, no company shall install or make any major change in automatic block signal systems, operation by signal indication or centralized traffic control.

2. With any application for such approval, the company shall send to the Secretary of the Board three sets of a combined plan and profile, on a scale of 400 feet to one inch horizontal and 20 feet to one inch vertical, showing tracks, gradients and alignments for the territory on which the signals are to be installed, and with the location for proposed signals shown thereon.

3. The symbols used on these combined plans and profiles to indicate signals and appurtenances shall be those approved by the Signal Section of the Association of American Railroads.

4. The apparatus shall, so far as possible, be so installed and circuits so arranged that failure of any part of the system affecting the safety of train operation will cause all signals affected to give the most restrictive indications which conditions require.

5. Signals shall be located preferably to the right of and adjoining the track to which they refer.

6. Signal indications shall be given by positions, by coloured lights, or by other. A single white light shall not be used for a proceed indication.

7. Signals shall be spaced at least stopping distance apart or, where not so spaced, an equivalent stopping distance shall be provided by two or more signals arranged to display restrictive indications approaching signal where such indications are required.

8. Signals shall be automatically controlled by continuous track circuits on main track and on other track where a speed of thirty miles an hour is permitted.

9. Signals governing movements over any switch shall be so controlled that proper restrictive indications will be displayed when any such switch is not in proper position for the desired movement.

10. On track signalled for movements in both directions, signals shall be arranged and controlled that proper restrictive indications will be provided to protect both following and opposing movements.

11. The circuits shall be so installed that:

(a) So far as possible, the failure of any part of a circuit affecting the control of a signal will not result in the signal displaying a more favourable indication than intended.

(b) When a train, engine, or car is in a block, and a switch is misplaced or its points are not in proper position or an independently operated fouling point derail equipped with switch circuit controller is misplaced or is not in derailing position or a track or signal control relay is in de-energized position, each signal governing a train movement into the block will display its proper restrictive indication.

(c) When there is no train, engine, or car in a block, and all switches and independently operated fouling point derails equipped with switch circuit controllers are in normal position, and all track and signal control relays are in energized position, each signal governing a train movement into the block will display its proper indication for approaching train to proceed.

12. Signal control and electric locking circuits shall not be broken through the contacts of instruments designed primarily for indicating or annunciating purposes in which an indicating element attached to the armature is arranged so it can in itself cause improper operation of the armature.

13. The battery or power supply for each signal control relay circuit, where an open line circuit or a common return circuit is used, shall be located at the end of the circuit farthest from the relay.

14. Signal control relay shall be controlled by track circuits extending through the entire block.

15. As soon as the installation is completed, it may be placed in operation. An application shall immediately be made to the Board for inspection.

M. B. ARCHIBALD,
Chief Commissioner.

GENERAL ORDER No. 724

In the matter of the Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight and Specifications for Shipping Containers, which were approved by General Order No. 722, dated January 21, 1949:

File No. 1717.60

FRIDAY, the 29th day of April, A.D. 1949.

Hon. Mr. Justice M. B. ARCHIBALD, *Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

Upon reading the submissions filed—

It is ordered that the said regulations be, and they are hereby, amended by inserting the following sentence immediately after the words, "equal to 1 per cent of the nitroglycerin or other liquid explosive ingredient", in paragraph numbered 61 (a) (4) thereof:

"This does not apply to 'Polar Monobel No. 7'."

M. B. ARCHIBALD,
Chief Commissioner.

GENERAL ORDER No. 725

In the matter of the Rules and Instructions for the Inspection and Testing of Locomotive Boilers and Their Appurtenances, prescribed by General Order No. 473, dated May 22, 1929, as amended by General Order No. 531, dated December 18, 1934:

File No. 16513

WEDNESDAY, the 1st day of June, A.D. 1949.

Hon. Mr. Justice M. B. ARCHIBALD, *Chief Commissioner.*

HUGH WARDROPE, *Asst. Chief Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Upon reading the submissions filed—

It is ordered that the Rules and Instructions for the Inspection and Testing of Locomotive Boilers and Their Appurtenances, prescribed by General Order No. 473, dated May 22, 1929, as amended by General Order No. 531, dated December 18, 1934, be, and they are hereby, further amended by

- (a) striking out clauses (18) (a) and (18) (b) on pages numbered 5 and 6 of the said Rules and Instructions and by substituting therefor the following:

“(18) METHOD OF TESTING FLEXIBLE STAYBOLTS WITH CAPS.—(a) All staybolts equipped with caps over the outer ends shall have the caps removed upon completion of 60 calendar months actual service, provided such service is performed within 6 consecutive years, at which time all bolts and sleeves must be examined and effectively tested for breakage or fracture. Portions of calendar months out of service will not be counted. Time out of service must be properly accounted for by out of service reports, and notations of months claimed out of service made on the back of each subsequent inspection report and cabcard. Each time a hydrostatic test is applied the hammer test required by Rules 16 and 17 must be made while the boiler is under hydrostatic pressure not less than the allowed working pressure.

Locomotives of United States railway companies running in International service between United States and Canada are permitted to operate in Canada provided the requirements of the Interstate Commerce Commission regarding staybolts are fully complied with.”

- (b) by striking out clause (35) on pages numbered 7 and 8 of the said Rules and Instructions and by substituting the following.

“(35) WATER GAUGE GLASS SHIELDS.—Water gauge glass mountings on all locomotives must be protected by a strong cage made of aluminum, or brass metal, fitted with heavy specially toughened glass shields $\frac{3}{4}$ of an inch thick, with an outlet pipe attached to the bottom of the water gauge shield which will allow the flow of steam from broken gauge glass to escape below the foot plate of the locomotive. These appurtenances must be so located as to insure a correct reading of the level of the water in the boiler at all times, and be in full view of both the engineer and fireman, and the lights so placed that there will be a clear and unobstructed view of the water in the mounting.

The provisions of this rule, in so far as the type of shield is concerned, do not apply to the Central Vermont, Rutland, Great Northern, Delaware & Hudson (Napierville Junction) railways.”

M. B. ARCHIBALD,
Chief Commissioner.

GENERAL ORDER No. 726

In the matter of general rules respecting practice and procedure before the Board:

File No. 429

FRIDAY, the 17th day of June, A.D., 1949.

Hon. Mr. Justice M. B. ARCHIBALD, *Chief Commissioner.*

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

W. J. PATTERSON, *Commissioner.*

It is ordered:

1. That the Rules and Regulations now in force respecting procedure before the Board, dated March 16, 1936, be, and they are hereby rescinded.
2. That General Order No. 605 be, and it is hereby rescinded.
3. That the Rules of Practice hereto annexed be, and they are hereby made and adopted.

M. B. ARCHIBALD,
Chief Commissioner.

GENERAL ORDER No. 727

In the matter of the application of The Railway Association of Canada for approval of Supplement No. 1 to C.T.C. No. 2, R.A.C. No. 2 (Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight and Specifications for Shipping Containers):

File No. 1717

FRIDAY, the 12th day of August, A.D., 1949.

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*F. M. MACPHERSON, *Commissioner.*

Upon reading the submissions filed:

It is ordered:

That, effective September 15, 1949, the said Supplement No. 1 to C.T.C. No. 2, R.A.C. No. 2 (Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight and Specifications for Shipping Containers), on file with the Board under file No. 1717, be, and it is hereby, authorized for the observance of the railway companies subject to the jurisdiction of the Board which accept explosives and other dangerous articles for carriage.

A. SYLVESTRE,
Deputy Chief Commissioner.

GENERAL ORDER No. 728

In the matter of the application of the Canadian Industries Limited for an Order authorizing the railway companies subject to the jurisdiction of the Board to take and receive 12·5-gallon capacity returnable metal drums from the Canadian Industries Limited for the shipment of Lacquer Thinning Compound:

File No. 1717.87.46

FRIDAY, the 12th day of August, A.D., 1949.

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

Upon reading the submissions filed:

It is ordered:

That the railway companies subject to the jurisdiction of the Board be, and they are hereby, authorized to take and receive from the Canadian Industries Limited 12·5-gallon capacity returnable metal drums with two rolled-in hoops for the shipment of Lacquer Thinning Compound, made to comply with Specification 5B of the Board's Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight in all respects except that body and head sheets may be made from 19-gauge sheet steel.

A. SYLVESTRE,
Deputy Chief Commissioner.

GENERAL ORDER No. 729

In the matter of the application of the New York Central Railroad Company for an Order requiring inspection of crossing protection to be carried out at intervals not exceeding a period of seventy-two hours instead of the forty-eight hour period required by General Order No. 675, dated November 29, 1945:

File No. 15382

TUESDAY, the 16th day of August, A.D., 1949.

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

W. J. PATTERSON, *Commissioner.*

Upon reading the submissions filed—

It is ordered: That General Order No. 675, dated November 29, 1945, be, and it is hereby, amended by striking out the words, "forty-eight hours", in paragraph numbered 9 of the said Order and by substituting therefor the words "seventy-two hours".

A. SYLVESTRE,
Deputy Chief Commissioner.

GENERAL ORDER No. 730

In the matter of the Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight and Specifications for Shipping Containers, which were approved by General Order No. 722, dated January 21, 1949:

File No. 1717-78

FRIDAY, the 9th day of September, A.D. 1949.

HON. MR. JUSTICE M. B. ARCHIBALD, *Chief Commissioner.*

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

W. J. PATTERSON, *Commissioner.*

Upon reading the submissions filed—

It is ordered that the Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight, dated effective March 1, 1949, be amended by striking out paragraph (i) of section 31 thereof and substituting the following paragraph therefor:

“(i) Before tank cars are loaded, the shipper must examine the tanks and their appurtenances to see that the safety and outlet valves, the safety vents, the closures of all openings, and the protective covers of all appurtenances are in proper condition. Tanks with bottom discharge outlets must have their outlet caps off during entire time tanks are being loaded. After loading, tanks which show any dropping of liquid contents at the seams or rivets, or with bottom outlet valves which permit more than a dropping of the liquid with the outlet caps off, must not be offered for transportation until proper repairs have been made. The shipper must attach seals to the dome covers and show the seal numbers on bills of lading.”

M. B. ARCHIBALD,
Chief Commissioner.

TRANSPORT COMMISSIONERS OF CANADA

GENERAL ORDER No. 731

In the matter of the application of the New York Central Railroad Company for an Order requiring inspection of crossing protection to be carried out at intervals not exceeding a period of seventy-two hours instead of the forty-eight hour period required by General Order No. 607, dated September 29, 1941:

File No. 15382

FRIDAY, the 9th day of September, A.D., 1949.

HON. MR. JUSTICE M. B. ARCHIBALD, *Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

W. J. PATTERSON, *Commissioner.*

Upon reading the submissions filed—

It is ordered that General Order No. 607, dated September 29, 1941, be and it is hereby, amended by striking out the words, "forty-eight hours", in paragraph numbered 9 of the said Order and by substituting therefor the words, "Seventy-two hours".

M. B. ARCHIBALD,
Chief Commissioner.

GENERAL ORDER No. 732

In the matter of the Pipe Lines Act and the carrying of company pipe lines across railways, highways, dikes, irrigation ditches, underground telegraph, telephone and electric power lines and pipe lines:

File No. 45371.5

THURSDAY, the 29th day of September, A.D., 1949.

Hon. Mr. Justice M. B. ARCHIBALD, *Chief Commissioner.*

HUGH WARDROPE, *Assistant Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

In pursuance of the powers vested in the Board by the Pipe Lines Act and of all other powers possessed by the Board in this behalf—

It is ordered:

1. That the regulations hereto annexed under the heading "Standard Regulations Regarding Company Pipe Line Crossings" be, and they are hereby, made and adopted in respect to the carrying of company pipe lines across railways, highways, dikes, irrigation ditches, underground telegraph, telephone and electric power lines and pipe lines.

2. That any reference in an Order of the Board to "Standard Regulations Regarding Company Pipe Line Crossings" shall be deemed to be a reference to the regulations hereby made and adopted.

M. B. ARCHIBALD,
Chief Commissioner.

STANDARD REGULATIONS REGARDING COMPANY
PIPE LINE CROSSINGS

(Made and adopted by General Order of the Board No. 732, dated the 29th day of September, 1949).

1. These Regulations shall apply unless the Board directs or permits a departure therefrom in respect to any particular crossing or crossings.

2. In these regulations,

“utility line” means a dike, irrigation ditch, underground telegraph, telephone or electric power line or pipe line.

3. Before carrying a company pipe line across any railway, highway or utility line, the company shall apply to the Board for leave, and upon such application shall file with the Secretary of the Board three sets of a plan and profile combined of the crossing.

The plan shall be made to a scale of 4 inches to 1 mile and shall indicate clearly the location of the crossing and of all works involved in the crossing.

The profile shall be on the following scale:

Horizontal—one inch equals 20 feet;

Vertical—one inch equals 10 feet;

4. The applicant shall give notice of the application with a copy of the plan and profile combined to the public authority having control over the railway, highway or utility line to be crossed or to the owner of such railway or utility line, as the case may be.

5. The carrier pipe of a company pipe line shall be in conformity with the requirements of American Petroleum Institute Standard 5LX for high-test line pipe.

Railway Crossings

6. Regulations numbered 5 to 18 of the “Standard Regulations Regarding Pipe Line Crossings Under Railways” approved by General Order No. 592 shall apply to the construction of a company pipe line under any railway, whether the railway is or is not subject to the jurisdiction of the Board under the provisions of the Railway Act. No regulations approved by General Order No. 592 other than the said regulations numbered 5 to 18 shall apply to a company pipe line.

*The following Regulations apply to crossings by company pipe lines of
highways and utility lines*

7. Where casing is required the carrier pipe shall be encased in a larger steel casing pipe or conduit of sufficient strength to withstand all stresses and strains resulting from its location.

8. Casing pipe, when required at highway crossings, shall, unless the public authority concerned, with the concurrence of the Director of Engineering of the Board, agrees to a lesser width, extend the full width of the highway right of way, and when required at other crossings, shall extend such width as is required by the Director of Engineering of the Board.

9. Where the ends of the casing pipes are below the ground they shall be suitably sealed to the outside of the carrier pipe and properly vented above the ground with vent pipes not less than 2 inches in diameter, and extending not less than 4 feet above the ground surface.

Vent pipes shall be placed approximately one foot from the ends of the casing pipe. Vent pipes at the low end of the casing shall be connected with the side or bottom of the casing and vent pipes at the high end shall be connected with the top of the casing. The top of each vent pipe shall be fitted with turn-down elbow, properly screened.

In the case of highways, vent pipes with suitable identification, markers are to be located on each side of the right of way and approximately on the limits thereof.

10. When the ends of the casing are at or above the ground surface, and above high water level, they may be left open, provided drainage is afforded to conduct all leakage away. Where proper drainage is not provided the ends of the casing shall be sealed.

11. The inside diameter of the casing pipe shall be sufficiently large to permit ready withdrawal of the carrier pipe without disturbing the structure of the highway or the utility line crossed. The casing pipe shall slope to one end and shall be installed with an even bearing throughout its length, and in such a manner as to prevent formation of a waterway along it.

The casing pipe shall be installed so as to prevent leakage, except through vent pipes or the ends of the casing if open.

12. The top of the casing pipe, or of the carrier pipe where casing is not required, shall not be less than 4 feet below the surface of a highway, or less than one foot below the highway ditches, and the pipe line shall be so located that it will not obstruct the drainage, or interfere with traffic on the highway, or highway maintenance. Where it is not possible to secure the required depth, special construction will be necessary and will be subject to the approval of the Board.

13. Carrier pipes, casing pipes and vent pipes shall be at least 4 feet (vertically) from aerial electric wires, and shall be suitably insulated from underground conduits carrying electric wires.

14. The construction of the company pipe line shall be carried out in such a manner as not to interfere unduly with or obstruct unduly or to endanger traffic at any highway crossing, and all necessary precautions shall be taken by the Company to protect traffic by the use of signs, signals, flagman and watchman.

15. All work in connection with the laying, maintaining, renewing and repairing of the company pipe line and the continued supervision of the same shall be performed by the applicant, and, unless the renewal or repair is made necessary by reason of the negligence of others, all costs and expenses of such work shall be borne and paid by the applicant, and no work at any time shall be done in such a manner as unduly to obstruct, delay, or interfere with the operation of highways or utility lines.

16. The applicant shall at all times maintain the company pipe line in good working order and condition so that at no time shall any damage be caused to highways or utility lines, or their usefulness or safety impaired, or the full use and enjoyment thereof be in any way interfered with.

17. Subject to the proviso hereinafter set out, before any work of constructing, renewing, or repairing the company pipe line is begun, the applicant shall give to the public authority having control over the highway or utility line, or to the owner of the utility line, as the case may be, at least 48 hours' notice thereof in writing.

Provided, however, that in an emergency, the work of repairing the company pipe line may be begun without the giving of the notice, but in such case notice shall be given as soon as is reasonably possible.

18. The applicant shall at all times wholly indemnify the public authority controlling the highway or utility line, or the owner of the utility line as the case may be, from and against all loss, damage, injury and expense to which the public authority or owner may be put by reason of any damage or injury to persons or property, caused by the construction, maintenance or operation of the applicant's pipe line or any works herein provided for by the terms and provisions of these regulations, as well as against any damage or injury resulting from the imprudence, neglect, or want of skill of the employees or agents of the applicants, in connection with laying, maintenance, renewal or repair of said pipes or use thereof, unless the cause of such loss, cost, damage, injury or expense can be traced elsewhere.

GENERAL ORDER No. 733

In the matter of the Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight and Specifications for Shipping Containers:

File No. 1717

TUESDAY, the 18th day of October, A.D. 1949.

HUGH WARDROPE, *Asst. Chief Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

W. J. PATTERSON, *Commissioner.*

It is ordered that the following Orders of the Board be, and they are hereby, rescinded.

Order No. 70012, dated January 5, 1948,
Order No. 70973, dated July 27, 1948,
General Order No. 683, dated April 9, 1946,
General Order No. 705, dated November 26, 1947,
General Order No. 711, dated March 13, 1948,
General Order No. 713, dated April 5, 1948,
General Order No. 717, dated June 29, 1948,
General Order No. 721, dated December 2, 1948.

HUGH WARDROPE,
Assistant Chief Commissioner.

GENERAL ORDER No. 734

In the matter of Regulations respecting the installation of or changes to all types of automatic block signal or centralized traffic control systems:

File No. 45417

WEDNESDAY, the 19th day of October, A.D. 1949.

Hon. Mr. Justice M. B. ARCHIBALD, *Chief Commissioner.*

HUGH WARDROPE, *Asst. Chief Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

It is ordered that the following regulations respecting the installation of or changes to all types of automatic block signal or centralized traffic control systems be, and they are hereby prescribed for the observance of every railway company within the legislative authority of the Parliament of Canada:

1. Without the approval of the Board, no company shall install or make any major change in automatic block signal systems or centralized traffic control.

2. With any application for such approval, the company shall send to the Secretary of the Board three sets of a combined plan and profile, on a scale of 400 feet to one inch horizontal and 20 feet to one inch vertical, showing tracks, gradients and alignments for the territory on which the signals are to be installed, and with the location for proposed signals shown thereon.

3. The symbols used on these combined plans and profiles to indicate signals and appurtenances shall be those approved by the Signal Section of the Association of American Railroads.

4. The apparatus shall, so far as possible, be so installed and circuits so arranged that failure of any part of the system affecting the safety of train operation will cause all signals affected to give the most restrictive indications which conditions require.

5. Signals shall be located preferably to the right of and adjoining the track to which they refer.

6. Signal indications shall be given by positions, by coloured lights, by flashing lights, or by a combination thereof. A single white light shall not be used for a proceed indication.

7. Signals shall be spaced at least stopping distance apart or, where not so spaced, an equivalent stopping distance shall be provided by two or more signals arranged to display restrictive indications approaching signal where such indications are required.

8. Signals shall be automatically controlled by continuous track circuits on main track and on other track where a speed of thirty miles an hour is permitted.

9. Signals governing movements over any switch shall be so controlled that proper restrictive indications will be displayed when any such switch is not in proper position for the desired movement.

10. On track signalled for movements in both directions, signals shall be so arranged and controlled that proper restrictive indications will be provided to protect both following and opposing movements.

11. The circuits shall be so installed that:

- (a) So far as possible, the failure of any part of a circuit affecting the control of a signal will not result in the signal displaying a more favourable indication than intended.
- (b) When a train, engine, or car is in a block, and a switch is misplaced or its points are not in proper position or an independently operated fouling point derail equipped with switch circuit controller is misplaced or is not in derailing position or a track or signal control relay is in de-energized position, each signal governing a train movement into the block will display its proper restrictive indication.
- (c) When there is no train, engine, or car in a block, and all switches and independently operated fouling point derails equipped with switch circuit controllers are in normal position, and all track and signal control relays are in energized position, each signal governing a train movement into the block will display its proper indication for approaching train to proceed.

12. Signal control and electric locking circuits shall not be broken through the contacts of instruments designed primarily for indicating or annunciating purposes in which an indicating element attached to the armature is arranged so it can in itself cause improper operation of the armature.

13. The battery or power supply for each signal control relay circuit, where an open line circuit or a common return circuit is used, shall be located at the end of the circuit farthest from the relay.

14. Signal control relay shall be controlled by track circuits extending through the entire block.

15. As soon as the installation is completed, it may be placed in operation. An application shall immediately be made to the Board for inspection.

And it is further ordered that General Order No. 723, dated the 7th day of April, 1949, be, and it is hereby, rescinded.

HUGH WARDROPE,
Assistant Chief Commissioner.

GENERAL ORDER No. 735

In the matter of General Order No. 558, dated October 6, 1936:

Case No. 538

MONDAY, the 28th day of November, A.D. 1949.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Upon reading the submissions filed—

It is ordered

1. That General Order No. 558, dated October 6, 1936, be, and it is hereby rescinded.

2. That this Order shall come into force on the 21st day of February, 1950.

HUGH WARDROPE,
Assistant Chief Commissioner.

OTTAWA, May 5th, 1949.

CIRCULAR No. 264 (R)

File No. 5120.40 Re: fire and explosion reports with respect to installations made under Board's General Orders Nos. 597 and 716.

It has come to the knowledge of the Board that fires have occasionally occurred in oil storage and liquefied gas installations and in order to determine the cause and extent of such incidents the Board considers that all cases of fires connected with the above mentioned installations should be reported.

I am, therefore, directed to request that fires, explosions or accidents involving installations of petroleum products or liquefied petroleum gases governed by General Orders Nos. 597 and 716 be promptly reported to the Board giving full information as to cause, etc.

By Order of the Board,

P. F. BAILLARGEON,

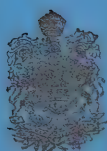
Secretary.

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DOMINION OF CANADA

FORTY-SIXTH REPORT
of
**THE BOARD OF TRANSPORT
COMMISSIONERS FOR CANADA**

**FOR THE YEAR ENDED
DECEMBER 31
1950**



OTTAWA
EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
CONTROLLER OF STATIONERY
1951

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THE BOARD OF TRANSPORT COMMISSIONERS FOR
CANADA, 1950

Hon. Justice M. B. ARCHIBALD, *Chief Commissioner.*

W. H. M. WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

W. J. PATTERSON, *Commissioner.*

P. F. BAILLARGEON,
Secretary.

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REPORT OF THE BOARD OF TRANSPORT COMMISSIONERS FOR CANADA

To the Governor in Council:

Pursuant to the provisions of Section 31 of the Railway Act, 1919, the Board of Transport Commissioners for Canada has the honour to submit its Forty-sixth Report for the year ended December 31, 1950.

AMENDMENTS TO THE RAILWAY AND TRANSPORT ACTS

During the year 1950, there were two amendments to the Railway Act. One consisted in raising the amount of one hundred thousand dollars to one hundred and fifty thousand dollars as the maximum amount that may be applied by the Board out of the Railway Grade Crossing Fund towards the cost of providing protection, safety, and convenience in the case of any one level crossing. The other consisted in raising the appropriation from five hundred thousand dollars to one million dollars each year for six consecutive years from the first day of April 1951, to aid construction work for the protection, safety and convenience of the public in respect of railway-highway level crossings.

There was no amendment to the Transport Act.

PUBLIC SITTINGS OF THE BOARD

During the year covered by the period from January 1, 1950, to December 31, 1950, the Board held 48 public sittings at which 39 cases were heard. The number of public sittings held in the various provinces was as follows:—

Provinces	Number
Ontario.....	24
Quebec.....	10
Manitoba.....	2
Saskatchewan.....	3
Alberta.....	6
British Columbia.....	2
Nova Scotia.....	—
New Brunswick.....	—
Prince Edward Island.....	—
Newfoundland.....	1
Total.....	48

The applications include a great variety of matters falling within the jurisdiction of the Board under the Railway Act and the Transport Act, varying from a complaint of a private individual to weightier matters of general public interest affecting the community as a whole.

FORMAL AND INFORMAL MATTERS

The number of informal matters dealt with by the Board, as distinguished from matters heard at public sittings, constitute a considerable percentage of the total applications and complaints dealt with by it; that is to say, of a total of 2,332 applications and complaints received and dealt with by the Board 98.32 per cent were disposed of without the necessity of such formal hearing. These informal complaints, dealt with and settled without the necessity of hearing, entail in many instances a considerable amount of inquiry and consideration on the part of the Board and the Board's officials, and cover a wide range of subjects, as for example, a complaint of a more or less trivial nature to a matter of general public interest affecting the community as a whole, or involving the application of some general principal regarding the transport rates.

DECISIONS AND RULINGS OF THE BOARD

Brief notes of a number of the more important judgments delivered in 1950 are given below.

LAKE ERIE AND NORTHERN AND GRAND RIVER RAILWAYS *v.*
TOWNSHIP OF PORT DOVER ET AL. 65 C.R.T.C. 124

Upon an application by the railway companies for leave to discontinue their passenger services, the public thereafter to be served by bus lines, the Board denied the application upon the ground that the public would be seriously inconvenienced, but reserved the right to the railways to curtail their schedules.

Re CERTAIN INCREASED RATES ON AGRICULTURAL IMPLEMENTS
40 J.O.R. & R. 174

On September 1st, 1919, commodity rates were established on agricultural implements moving from Eastern to Western Canada, and these rates were materially lower than the 6th class rates which had previously applied. The 6th class rates were restored by a tariff which became effective on December 27th, 1948, but objections to the tariff were filed and the Board suspended the tariff pending hearing of the objections. The Board held that, on the material before it, the 6th class rates are just and reasonable for the movement of agricultural implements from points in Eastern Canada to destinations in Western Canada, and the railways were justified in restoring the 6th class rates.

NEWFOUNDLAND *v.* C.N.R.
39 J.O.R. & R. 293

The Province of Newfoundland applied for an order directing the Canadian National Railway Company to cancel its tariffs in effect relative to the movement of traffic into, through and out of Newfoundland, and to substitute other tariffs and tolls based on the rate structure presently in effect in relation to the movement of traffic within, into and out of the region formerly known as the Maritime Provinces. At the first hearing the parties wished to have a decision on the preliminary question whether subsections 2 and 3 of section 32 of the Terms of Union, and section 13 of the Statute Law (Newfoundland) Amendment Act preclude the respondent from exercising in Newfoundland the right which it would otherwise have under the Railway Act to discriminate in rates because of dissimilarity in circumstances and conditions. The Board held that the common law contains no rule against discrimination by common carriers, and the only kind of discrimination prohibited by the Railway Act is discrimination that is undue, unfair or unjust; that railway companies have always had the right to discriminate in rates because of dissimilarity in circumstances and conditions, and the statutes referred to do not lay down a different rule for Newfoundland.

LAKESHORE RAILROAD COMMUTERS' ASSOCIATION *et al v.* C.N.R., C.P.R., *et al.*
40 J.O.R. & R. 250

The railways concerned issued tariffs effective October 15, 1949, involving substantial increase in certain existing commutation fares. Having received protests against the new tariffs, the Board suspended them pending further order. The Board held that it has jurisdiction to prescribe the rates at which commutation tickets shall be issued, and that the existing rates are unreasonably low and the proposed rates unreasonably high. The suspended tariffs were disallowed and the railways required to issue commutation tickets in accordance with the judgment at rates twenty per cent higher than the existing commutation rates.

Re APPLICATION OF THE RAILWAY ASSOCIATION OF CANADA FOR AUTHORITY TO
MAKE A GENERAL INCREASE OF 20% IN FREIGHT RATES

39 J.O.R. & R. 292

40 J.O.R. & R. 103

Final disposition of the application was made in judgments dated February 28, 1950, and May 11, 1950. The Board held that it was justified in accepting the submission of the railways of increased operating expenses due to increased labour costs, and that the revenue deficiency of the C.P.R. for 1949, appropriately adjusted, was \$29,971,700, and the increase applied for would produce \$28,954,422. Application for 20% increase granted.

APPLICATION OF BRITISH COLUMBIA TELEPHONE COMPANY FOR APPROVAL
OF INCREASED RATES AND CHARGES

40 J.O.R. & R. 215

The application was for the purpose of approving certain changes in the rates and charges of the company and a change in the grouping of exchange rentals. The last general increase in the company's tolls was in 1921. The Board heard the application in Vancouver and Victoria in January, 1950, and later issued an interim order under which an estimated additional gross revenue of \$1,466,971 would be produced annually. In its final judgment the Board found that the company's revenue deficiency for rate making purposes is approximately \$1,960,260 and a rate structure designed to meet such deficiency should be approved. Order granted accordingly.

Re APPLICATION OF BELL TELEPHONE COMPANY OF CANADA FOR APPROVAL
OF REVISED TARIFFS FOR EXCHANGE AND LONG DISTANCE SERVICES

40 J.O.R. & R. 314

The last general increase in the company's tolls was in 1927. The hearing of the application commenced on March 8th, 1950, and involved 50 days of sittings. Pending final judgment the Board issued an interim order on July 7th, 1950, authorizing certain increases in tolls. In its final judgment the Board held that the company's estimated revenues for rate making purposes are deficient by approximately \$25,721,500, and a rate structure designed to meet such deficiency should be approved, and that the grouping of exchanges by the denominator of toll telephones is a fair and reasonable method of applying exchange rates. Order granted accordingly.

Judgments, Orders, Rules and Regulations of the Board appear in the semi-monthly bulletin of the Board. The Board's Judgments are also reported in the Canadian Railway and Transportation Cases.

APPEALS FROM JUDGMENTS OF THE BOARD

An appeal was taken to the Governor in Council from the judgments allowing a general increase in freight rates above mentioned. The appeal was dismissed.

No other appeal was taken, but an application made to the Board by the railways for leave to appeal to the Supreme Court of Canada from the judgment in the commutation fares case, above mentioned, is pending.

ORDERS, GENERAL ORDERS AND CIRCULARS

The total number of orders issued for the year ended December 31, 1950, was 2,110. The number of general circulars issued by the Board directed to all the transport companies subject to its jurisdiction was one. The general orders as distinguished from other orders of the Board are those affecting all transport companies subject to its jurisdiction, and are 12 in number for the year.

The general orders and circulars issued by the Board during the year ended December 31, 1950, will be found compiled under Appendix "H" of this report.

APPLICATIONS TO THE BOARD

The total number of applications, including informal complaints, made to the Board for the year ended December 31, 1950, was 2,332.

ROUTINE WORK OF THE BOARD

RECORD DEPARTMENT

Below is given a table setting forth the number of applications, filings and letters received during the year ended December 31, 1950, together with the number of orders issued:—

Number of applications made.....	2,332
Number of filings received during the year.....	26,249
Number of outgoing letters during the year.....	26,294
Number of orders issued during the year.....	2,110

PRINCIPAL CHANGES ON THE STAFF OF THE BOARD

During the year 1950, the following changes on the Staff were recorded:—

Mr. D. G. Kilburn, Director of Engineering, was retired on May 6th. He had first joined the Board on October 1, 1929, as Division Engineer and had been later promoted to the position of Chief Engineer on April 1, 1937. He was replaced on May 7th by Mr. K. Hall who previously was Assistant Director of Engineering. Mr. J. E. Dumontier, District Engineer, was promoted to the position of Assistant Director of Engineering on May 7.

Messrs. J. C. Torrington, M. M. Stonehouse, R. F. Saunders, L. H. Hawkins and A. Des Trois Maisons, were appointed District Engineers on April 22, August 16, October 2, October 9 and October 16, respectively. Messrs. T. H. Turnbull and M. M. Downie were both appointed District Inspectors on February 1st, Mr. D. C. Bignell was appointed Travelling Auditor on July 6, and Mr. H. J. Darling, Economist Grade 8 on November 1st.

A list of the present and former members of the Board appears at Appendix "A".

TECHNICAL SERVICES

Besides its Administrative and Legal branches, the Board is composed of four main technical departments, namely: the Traffic, the Engineering and the Operating departments and the Bureau of Transportation Economics. Summaries of the activities of these departments, during 1950, are to be found in the Appendices to this report.

APPENDIX "A"

LIST OF MEMBERS OF THE BOARD WHO HAVE SERVED OR ARE SERVING ON THE BOARD

Member's Name	Office	Appointment	Termination
Hon. A. G. Blair, K.C.....	Chief.....	Feb. 1, 1904..	Oct. 31, 1904 (resigned)
Hon. M. E. Bernier.....	Deputy.....	Feb. 1, 1904..	Jan. 31, 1914 (served term)
James Mills.....	Commr.....	Feb. 1, 1904..	Jan. 31, 1914 (served term)
Hon. A. C. Killam, K.C.....	Chief.....	Feb. 6, 1905..	Mar. 1, 1908 (died)
Hon. J. P. Mabee, K.C.....	Chief.....	Mar. 28, 1908..	May 6, 1912 (died)
D'Arcy Scott.....	Ass't.....	Sept. 17, 1908..	Sept. 16, 1918 (served term)
S. J. McLean.....	Commr.....	Sept. 17, 1908..	Sept. 16, 1918 (reappointed)
Hon. Thos. Greenway.....	Commr.....	Sept. 17, 1908..	Oct. 30, 1908 (died)
A. S. Goodeve.....	Commr.....	April 4, 1912..	Nov. 22, 1920 (died)
Henry L. Drayton, K.C.....	Chief.....	July 1, 1912..	Sept. 1, 1919 (resigned)
Hon. W. B. Nantel, K.C.....	Deputy.....	Oct. 20, 1914..	Oct. 19, 1924 (served term)
A. C. Boyce, K.C.....	Commr.....	Oct. 4, 1917..	Oct. 3, 1927 (served term)
Dr. J. G. Rutherford, C.M.G.....	Commr.....	Sept. 17, 1918..	July 24, 1923 (died)
Hon. F. B. Carvell, K.C.....	Chief.....	Aug. 2, 1919..	Aug. 8, 1924 (died)
S. J. McLean, LL.B.....	Commr.....	Sept. 16, 1918..	Sept. 15, 1928 (reappointed)
	Asst.....	Aug. 6, 1919..	
Calvin Lawrence.....	Commr.....	Nov. 4, 1921..	May 4, 1931 (died)
Hon. Frank Oliver.....	Commr.....	Sept. 21, 1923..	Sept. 20, 1928 (reached age of 75)
Hon. H. A. McKeown, K.C.....	Chief.....	Sept. 16, 1924..	Feb. 28, 1931 (resigned)
Thomas Vien, K.C.....	Deputy.....	Sept. 5, 1925..	Jan. 31, 1931 (resigned)
Hon. T. C. Norris.....	Commr.....	Mar. 30, 1928..	Mar. 29, 1938 (served term)
S. J. McLean, LL.B.....	Ass't.....	Sept. 17, 1928..	Sept. 16, 1938 (served term)
John A. Stoneman.....	Commr.....	Mar. 12, 1929..	Mar. 11, 1939 (reappointed)
Hon. C. P. Fullerton, K.C.....	Chief.....	Aug. 13, 1931..	Dec. 31, 1933 (resigned)
F. A. Labelle.....	Deputy.....	Dec. 16, 1931..	July 15, 1933 (died)
G. A. Stone.....	Commr.....	Dec. 16, 1931..	Dec. 15, 1941 (reappointed)
F. Nap. Garceau, K.C.....	Deputy.....	Sept. 16, 1933..	Apr. 10, 1943 (reached age of 75)
Hon. Hugh Guthrie, K.C.....	Chief.....	Aug. 12, 1935..	Nov. 3, 1939 (died)
Hugh Wardrope.....	Ass't.....	Nov. 8, 1938..	Nov. 8, 1948 (reappointed)
John A. Stoneman.....	Commr.....	Mar. 11, 1939..	Mar. 10, 1949 (served term)
F. M. MacPherson.....	Commr.....	Sept. 21, 1939..	Sept. 20, 1949 (reappointed)
J. A. Cross, Col., D.S.O., K.C.....	Chief.....	Apr. 1, 1940..	June 30, 1948 (resigned)
G. A. Stone.....	Commr.....	Dec. 15, 1941..	July 1, 1947 (reached the age of 75) (reappointed—July 1, 1947, to June 30, 1948)
Armand Sylvestre, K.C., LL.B.....	Deputy.....	April 18, 1945..	April 17, 1955
Hon. Mr. Justice M. B. Archibald.....	Chief.....	July 1, 1948..	June 30, 1958
H. B. Chase, C.B.E.....	Commr.....	July 28, 1948..	July 27, 1958
Hugh Wardrope.....	Ass't.....	Nov. 8, 1948..	Nov. 7, 1958
William J. Patterson.....	Commr.....	April 28, 1949..	April 27, 1959
Frank M. MacPherson.....	Commr.....	Sept. 21, 1949..	Sept. 20, 1959

APPENDIX "B"

(1) Since the establishment of the Board, its jurisdiction has been extended to the following matters:—

- (a) Bridges—3 Edw. VII, C.58, S.8 and R.S. Can. 1927, C.20.
- (b) Express tolls—6 Edw. VII. C.42, S.27, 1906.
- (c) Telegraph companies—C.61, 1908. S.4.
- (d) Telephone companies—6 Edw. VIII. C.42, S.30.
- (e) Radio—1938 Can. Statutes. C.50, S.6.
- (f) International bridges and tunnels—1929. C.54.
- (g) Maritime Freight Rates Act—1927, C.44.
- (h) Abandonment of Operation of railway lines—1933, C.47 (S.165A).
- (i) Canadian National-Canadian Pacific Act, 1933, C.33.
- (j) The Transport Act, 1938, C.53—(Licensing and rate regulations of ships; agreed charges).
- (k) Agreements—(S.35 of present Act)—8-9 Edw. VII, C.32, S.1.
- (l) Purchase of electrical energy from a person who has acquired water power under lease from the Crown (S.374 of present Act) 1909, C.31, S.1.
- (m) Railway Grade Crossing Fund (S.262 of present Act)—1909. C.32, S. 7.
- (n) The Pipe lines Act, 13 Geo. 6, Chap. 20, 1949.

(2) Since 1923 the jurisdiction of the Board has been extended to the following railways:—

Hudson Bay Railway.

Intercolonial.

Prince Edward Island.

National Trans-Continental.

Lake Superior Branch (Leased from G.T.P.R.).

Quebec North Shore and Labrador Railway.

(3) In addition to the above there are a number of Acts which gave the Board jurisdiction over particular companies in certain specified matters.

APPENDIX "C"

REPORT OF THE TRAFFIC DEPARTMENT FOR THE YEAR
ENDED DECEMBER 31, 1950

Submitted herewith is the report of the Traffic Department of the Board for the calendar year 1950, setting out the number of tariff schedules and ancillary tariff documents received for filing; also a brief summary of other work performed:

TARIFFS AND SUPPLEMENTS FILED

<i>Rail—</i>	
Freight.....	28,948
Agreed Charges.....	33
Passenger.....	2,628
Sleeping and Parlour Car.....	61
<i>Water—</i>	
Freight.....	127
Passenger.....	38
Express.....	2,707
Telephone.....	3,234
Telegraph.....	34
International Bridges.....	6
Total tariff schedules.....	37,816

OTHER TARIFF DOCUMENTS FILED

Concurrences.....	363
Revocation Notices.....	91
Powers of Attorney.....	422
Revocation Notices.....	117
By-Laws.....	2
Total tariff documents.....	995
Total.....	38,811

MARITIME FREIGHT RATES ACT

For the period July 1, 1949 to June 30, 1950 inclusive, the detail of the work performed was:

Rates checked.....	1,463,258
Extensions checked.....	731,629
Additions checked.....	13,495
Corrections issued.....	20,723
Orders issued.....	199
Reimbursement claimed.....	\$ 1,423,642.04
Reimbursement allowed.....	1,388,775.95
Net deduction.....	34,866.09

CORRESPONDENCE

A total of 3,957 communications emanated from this Department during the year, relating to its administrative functions in the handling of complaints; interpretation of tariffs or classification and the filing of same; furnishing rate information; also, concerning powers of attorney, concurrences, free or reduced transportation administration of the Maritime Freight Rates Act and the granting of water licences under The Transport Act, 1938.

TRANSPORT COMMISSIONERS FOR CANADA

ORDERS ISSUED

During the year, in addition to Orders issued pursuant to the Maritime Freight Rates Act as mentioned above, the following Orders were issued:

Traffic	Water Licences	Agreed Charges	Telephone	Total
37	19	11	129	195

AGREED CHARGES

During the year Agreed Charge matters were:

New Agreements	Amendments to former Agreements	Fixed Charges	In effect December 31, 1950 Agreements	Shippers
2	5	4	23	73

WATER TRANSPORTATION LICENCE

Licences, under Part 2 of The Transport Act 1938, were granted as follows:

Licences	Ships	Area
11.....	73	Great Lakes
8.....	135	Mackenzie River
1.....	7	Yukon River

MISCELLANEOUS

During the year this Department dealt with 185 applications including formal complaints, and among other matters also assisted in the preparation of basic data for the purposes of the Board's "Waybill Analysis" which work is continuing in 1951.

A. S. KIRK,
Director.

APPENDIX "D"

January 27, 1951.

THE SECRETARY,
BOARD OF TRANSPORT COMMISSIONERS FOR CANADA,
OTTAWA, CANADA.

DEAR SIR,

I submit herewith my Annual Report and information regarding the work of the Engineering Branch of the Board during the past year, and attach herewith details and summarized statement of works of the Engineering Department during the year 1950.

Yours very truly,
E. K. HALL,
Acting Director of Engineering.

INTERLOCKING PLANTS, AND CHANGES TO PLANTS AND SIGNALS

Recommendations were made in connection with changes to thirteen interlocking plants, and eleven interlocking plants were inspected in connection with Operating Orders.

When applications are made by the railways for approval of plans, covering the installation of, and changes to, signals and interlocked switches at diamond crossings, bridges, or junctions, a thorough check of track and signal plant is made to ensure that the plant is designed to provide full protection for all train movements through the interlocking, with signals and switches so arranged and interlocked mechanically, electrically, or both, to prevent trains from receiving conflicting indications.

Before the plants were placed in service, the Board's Engineer made a check in the field in all cases to ensure that circuits were installed in accordance with approved plan, and that the signals and switches functioned as intended. Recommendation was made to the Board in all cases in connection with the necessary Operating Order before the plants were put in operation.

PROTECTION AT HIGHWAY CROSSINGS BY WIG-WAGS AND BELLS, FLASHING LIGHT SIGNALS AND BELLS, AND ELECTRIC GATES

During the year there were sixty-six installations of automatic protection at railway crossings, in addition to some twenty-five cases of circuit improvement in connection with existing protective devices.

Applications for automatic protection at railway highway level crossings are made by Municipal and Provincial Highway Authorities, sometimes by the Railways. Other cases are brought to the Board's attention by the officers of the Board. All applications do not result in installation of the protection applied for, but in the majority of cases all applications entail an inspection by an Engineer of the Board and his report for the Board's decision.

In the case of all installations the Board's Engineers made inspections and conducted a through test to ascertain if the installation had been made in accordance with the approved practice and plans, and if the protection was working in a satisfactory manner. An audit of all costs of protection installed was made by an Engineer of the Board. This involved the checking of all items of labour, material, as well as the original invoices. Recommendation was then made in connection with payment from the Railway Grade Crossing Fund, or special fund.

There were many inspections made during the year in connection with applications for highway crossing protection which did not result in installation, since as a result of the inspection it was found that conditions did not warrant the protection applied for.

HIGHWAY CROSSINGS OPENED, CLOSED, AND HIGHWAY DIVERSIONS

There were one hundred and seventy-nine new highway crossings opened during the year and forty-one closed, together with ten highway diversions. The highway crossings opened involved cases where the railway companies wished to extend their tracks across the existing public ways, and where Municipal and Highway Authorities desired to cross existing tracks by new, or diverted, highways.

Plans and profiles of the proposed crossings were carefully examined by Engineers of the Board, in order to endeavour to eliminate any objectionable features, such as obstruction to view, grades of approach, etc., and to bring about the safest possible travel conditions. A great many of the cases applied for required an examination on the ground, and recommendations were made following the inspections. Inspections were made in connection with highway diversions to eliminate wherever possible existing railway crossings.

BRIDGES

During the year there were fifty bridges and subways approved for construction and reconstruction. The use of heavier motive power has made it necessary to carry out various works capable of safely carrying the heavier rolling stock at speeds greatly in excess of those in existence some years ago. This involves strengthening and reconstruction of bridges and culverts. The plans in connection with these structures were all submitted and were examined by an Engineer of the Board, and recommendation was made to the Board in connection therewith. After the structures were completed, examinations were made in all cases by an Engineer of the Board to ascertain if the structures were built according to the approved plan and safe for the carriage of traffic.

In addition to the above, inspections were made of three hundred and seventy-three bridges for safety of operation and recommendations made for an Order of the Board authorizing the railway companies to operate over them.

OPERATION OF BRANCH LINES AND INDUSTRIAL SPURS

The Engineering Department examined applications and plans in connection with operation over industrial spurs, and recommendations were made for seventy-seven approving Orders.

MAINTENANCE OF TRACK AND STRUCTURES

One of the important duties of the Engineering Department of the Board is the inspection of track conditions to ensure safety of travel over approximately fifty-seven thousand miles of railway trackage in Canada under the Board's jurisdiction. The Board's engineers throughout the year travelled over and inspected all the Main Lines of railway and a considerable mileage of branch lines, to ensure the safety of track for public travel. Particularly close and intensive examination was made of any Subdivision where any accident took place to ensure that standard practice and standard precautions had been taken, and the trackage was being properly maintained.

TUNNELS, WATER, GAS, OIL AND SEWER PIPES, UNDERGROUND MINE WORKINGS

In addition to the inspections enumerated above, plans were examined in connection with applications for water, gas and sewer pipes passing under the railways. In a number of cases these involved an inspection in the field. Plans and specifications were also examined in connection with applications for mining tunnels, and were recommended for approval when in accordance with safe practice.

A number of applications were received in connection with underground workings closely approaching the railway right-of-way, and examinations and recommendations were made to ensure every safety precaution for the Board's consideration in issuing Order.

Applications were received for the approval of twenty-two locations of oil and gas pipe lines in Western Canada. The Board's engineers checked the construction of these lines to see that they were constructed in accordance with approved plans and specifications.

The Interprovincial Pipe Line Company completed their oil line from Redwater, Alberta to the International boundary near Gretna, Manitoba.

The Westcoast Transmission Company completed a gas line from Pouce Coupe, Alberta to Dawson Creek, British Columbia.

The Board authorized the use of these pipe lines after they had been inspected by an Engineer of the Board.

RAILWAY GRADE CROSSING FUND, AND SPECIAL VOTES

In accordance with the provisions of sub-section (5) of Section 262 of the Railway Act, 1909, provision was made that the sum of \$200,000 each year, for ten consecutive years from the first day of April, 1909, be appropriated and set apart from the consolidated revenue fund for the purpose of aiding actual construction work for the protection, safety, and convenience of the public in respect of highway crossings of railways at rail level, in existence on the first day of April, 1909, the said sums to be placed to the credit of a special account to be known as "The Railway Grade Crossing Fund", to be applied by the Board, subject to certain limitations set out in the Act, and amending Acts, solely towards the cost (not including that of maintenance and operation), of actual construction work for the purpose specified. In 1919, the same sum was voted for another ten years and again in 1929.

In 1947 the sum of \$200,000 a year was voted for a period of ten years, and increased to \$500,000 a year for 1948, 1949 and 1950.

An amount of \$500,000 was transferred to the Railway Grade Crossing Fund from the Unemployment Relief Fund, 1930, and \$500,000 from the Unemployment and Farm Relief Fund, 1931-1932; \$500,000 by special vote of Parliament in 1934. In 1938, \$300,000 was placed in the Railway Grade Crossing Fund in addition to the usual \$200,000 and \$500,000 was placed in the Railway Grade Crossing Fund by special vote in 1939; \$1,000,000 by the Public Works Construction Act, 1935; \$1,000,000 by Vote 420, Special Supplementary Estimates, 1936-37; Vote 357, Special Supplementary Estimates, 1937-38, \$1,064,000; Vote 630, Supplementary Estimates 1938-39, provided \$1,000,000; and Vote 585, Supplementary Estimates 1939-40, provided \$1,000,000, making the total provided to the end of the year 1950 of \$15,064,000. Out of these funds the sum of \$12,430,300.51 has already been paid.

The funds voted to the Railway Grade Crossing Fund are accumulative, whereas the money provided by the Special Votes had to be committed to projects by the end of the current fiscal year, when the vote elapsed, and funds not already committed were no longer available.

Expenditures from the Railway Grade Crossing Fund were low during the War years due to labour and material being directed to War purposes, and recommendations were only made for protection at highway crossings when absolutely necessary at the time.

In 1928, the Railway Act was amended by Chapter 43, 18-19 George V, and provision was made that in the case of any one crossing the total amount of money to be applied by the Board out of the Railway Grade Crossing Fund, in providing protection, safety and convenience for the public, shall not exceed forty per cent of the cost of the actual construction work, and in no case shall the contribution exceed \$100,000. Under the terms of the Public Works Construction Act, 1935, Vote 420 of the Special Supplementary Estimates, 1936-37; Vote 357 of the Special Supplementary Estimates 1937-38; Vote 630 Supplementary Estimates, 1938-39; and Vote 585 Supplementary Estimates, 1939-40; grants could be made up to 100 per cent of the cost of construction out of the funds provided under those Acts. Following statements show the distribution of funds provided for the protection of highways crossing railways from 1909, when the first grant was made, to December 31, 1950.

The Engineering Department wishes to express its appreciation of the co-operation extended to it at all times during the past year by officials and engineers of the Provincial Highways Departments, Municipalities and Railways.

STATEMENT SHOWING TOTAL AMOUNT PAID FOR WORK DONE IN THE DIFFERENT PROVINCES OUT OF THE RAILWAY GRADE CROSSING FUND AND SPECIAL VOTES--PERCENTAGE OF TOTAL EXPENDITURE IN EACH PROVINCE, AND PERCENTAGE OF POPULATION OF CANADA IN EACH PROVINCE, 1909 TO DECEMBER 31, 1950.

Province	Total expenditure from the different Votes	Percentage of total amount of expenditure	Population of Province	Percentage of population of Canada
	\$ cts.			
British Columbia.....	809,494 96	6.51	1,114,000	8.24
Alberta.....	406,555 50	3.27	871,000	6.44
Saskatchewan.....	669,591 59	5.39	861,000	6.37
Manitoba.....	381,424 05	3.07	778,000	5.75
Ontario.....	6,193,637 12	49.85	4,411,000	32.61
Quebec.....	2,866,933 24	23.07	3,887,000	28.73
New Brunswick.....	323,645 10	2.60	516,000	3.82
Nova Scotia.....	753,012 85	6.06	645,000	4.77
Prince Edward Island.....	22,760 62	.18	94,000	.70
Newfoundland.....			348,000	2.57
Total.....	12,427,055 03	100.00	13,525,000	100.00

ENGINEERING DEPARTMENT

EXPENDITURE FOR PROTECTION AT HIGHWAY CROSSING

1909 TO DECEMBER 31, 1950

Province	Grade Crossing Fund	Percentage of Total	Municipalities	Percentage of Total	Railway	Percentage of Total	Total
	\$ cts.		\$ cts.		\$ cts.		\$ cts.
British Columbia.....	809,494 96	39.79	798,706 83	39.26	426,356 92	20.95	2,034,558 71
Alberta.....	460,555 50	32.56	426,090 18	34.12	416,112 56	33.32	1,248,758 24
Saskatchewan.....	669,591 59	36.38	823,193 17	44.73	347,583 51	18.89	1,840,368 27
Manitoba.....	381,424 05	42.01	209,946 94	23.12	316,583 06	34.87	907,954 05
Ontario.....	6,193,637 12	20.68	9,837,140 53	32.85	13,918,529 55	46.47	29,949,307 20
Quebec.....	2,866,933 24	38.93	3,465,782 87	47.06	1,032,296 86	14.01	7,365,012 97
New Brunswick.....	323,645 10	44.43	223,737 76	30.71	181,070 26	24.86	728,453 12
Nova Scotia.....	753,012 85	45.61	613,265 23	37.15	284,601 05	17.24	1,650,879 13
Prince Edward Island.....	22,760 62	60.08	12,822 98	33.85	2,300 94	6.07	37,884 54
Newfoundland.....							
Total.....	\$12,427,055 03	27.16	\$16,410,686 49	35.86	\$16,925,434 71	36.98	\$45,763,176 23

The above figures include payments from the Railway Grade Crossing Fund and all other Votes for highway crossing protection.

CONTRIBUTION FROM RAILWAY GRADE CROSSING FUND

Protection	Location	Railway	Per cent	Contribu- tions
				\$ cts.
Two flashing light signals (2) and bell	Highway No. 8 at Taymouth between Fredericton and McGivney, N.B.	C.N.R.	40	1,310 40
Overhead bridge and close one crossing	Highway Crossing at mileage 5-35, Carmi Subdivision, B.C.	K.V. Ry.	40	26,200 00
Two flashing light signals (2) and bell	Victoria Ave., Fort Frances, Ontario	C.N.R.	40	2,400 00
Changes to circuits of double wigwags	Argyle Street, Culbokie, Ontario, mile 59-9, Dunnville Subdivision,	C.N.R.	40	1,360 00
Two flashing light signals (2) and bell	Vidal Street, Sarnia, Ontario	C.N.R.	40	1,120 00
Two flashing light signals (2) and bell	Highway No. 1, Village of L'Enfant Jesus, County of Beauce, Mile 99-27, Quebec Subdivision	Q.C. Ry.	40	2,560 00
Two flashing light signals (2) and bell	Donald Street, Fort William, Ontario, mileage 1-049, Kashabowie Subdivision, Ontario	C.N.R.	40	2,175 00
Improve grade and sight lines	First Crossing west of station at Burlington, Ontario, mileage 33-3, Oakville Subdivision	C.N.R.	40	892 64
Two flashing light signals (2) and bell	Academy Road, Winnipeg, Manitoba, mileage 3-4, LaRiviere Subdivision	C.P.R.	40	3,000 00
Improvement to view	Crossing at mileage 126-84, Yarmouth Subdivision, Nova Scotia	C.N.R.	40	319 72
Overhead Bridge	Mill Street, St. John, N.B.	C.N.R.	40	100,000 00
Two flashing light signals (2) and bell	East Melick Road, Municipality of Infray and Melick, Ontario, mileage 144-39, Ignace Subdivision	C.P.R.	40	3,800 00
Two flashing light signals (2) and bell	Highway No. 40 in Township of Sarnia, Ontario, mileage 69-20, Sarnia and Erieau Subdivision	C. & O. Ry.	40	1,920 00
Changes in operating circuits	Park Street, Chatham, Ontario	C. & O. Ry.	40	600 00
Two automatic short arm gates with flashing light signals and bell	Highway at Weyburn, Saskatchewan, mileage 83-0, Portal Subdivision	C.P.R.	40	4,800 00
Improve sight lines	Crossing just west of station at Moulton, Ontario, mileage 32-94, Cayuga Subdivision	C.N.R.	40	290 00
Two flashing light signals (2) and bell	Highway 17 in Township of Beauceage, District of Nipissing, Ontario, mileage 74-29, Alderdale Subdivision	C.N.R.	40	1,139 42
Improve grade and widen crossing	Crossing in Lot 1, Concession 3, Township of Chinguarousy, County of Peel, near Malton, Ontario, mileage 18-24 Brampton Subdivision	C.N.R.	40	480 00
Two flashing light signals (2) and bell	Highway No. 3, 1 mile west of Tilsonburg, Ontario, mileage 95-54 Cayuga Subdivision	C.N.R.	40	535 12
Two automatic short-arm gates and flashing light signals and bell	Nairn Avenue between Eaton and Grey Streets, Winnipeg, Manitoba, Highway No. 7 near Acton Station, Ontario, mileage 35-69, Brampton Subdivision	C.P.R.	40	6,400 00
Two flashing light signals (2) and bell	Notre Dame Avenue, West, at Valour Road, Winnipeg, Manitoba, mileage 0-88, LaRiviere Subdivision	C.N.R.	40	3,200 00
Four flashing light signals (4) and two bells	Highway No. 8 near McGivney, N.B., mileage 84-90, Chipman Subdivision	C.P.R.	40	3,750 00
Two flashing light signals (2) and bell		C.N.R.	40	1,820 17

Two flashing light signals (2) and bell.....	Crossing east of station at Port Monton, N.S., mileage 10-31 Yarmouth Subdivision.....	C.N.R.....	40	1,172 68
Two flashing light signals (2) and bell.....	First crossing east of Sable River Station, N.S., mileage 28-63 Yarmouth Subdivision.....	C.N.R.....	40	1,631 66
Two flashing light signals (2) and bell.....	Highway No. 4 at mileage 7-17 Sydney Subdivision at McIntyre Lake Station, N.S.....	C.N.R.....	40	1,484 06
Two flashing light signals (2) and bell.....	Highway No. 51 near Les Etroits Station, Quebec.....	C.N.R.....	40	1,486 56
Two short-arm gates, two flashing lights (2) and bell.....	Ritson Road, Oshawa, Ontario.....	C.P.R.....	40	4,000 00
Two flashing light signals (2) and bell.....	Notre Dame Ave. West, between Erin Street and Wall Street, Winnipeg, Manitoba.....	C.P.R. and Midland Ry.....	40	3,100 00
Two flashing light signals (2) and bell.....	North Street, Sault Ste. Marie, Ontario, mileage 132-19 Thessalon Subdivision.....	C.P.R.....	40	2,560 00
Two flashing light signals (2) and bell.....	Eglinton Avenue, 1-25 miles north of Scarboro Station, Uxbridge Subdivision, Ontario.....	C.N.R.....	40	1,335 33
Two flashing light signals (2) and bell in lieu of bell and wigwag.....	Depue Street, Hamilton, Ontario.....	T.H.&B.Ry.....	40	185 00
Two flashing light signals (2) and bell in lieu of bell and wigwags.....	Maple Avenue, Hamilton, Ontario.....	T.H.&B.Ry.....	40	185 00
Two flashing light signals (2) and bell.....	Campbell's Hill Crossing (Point Edward Road) Jefferson, N.S.....	C.N.R.....	40	1,324 60
Two flashing light signals (2) and bell.....	Crossing at Sheeley, N.S., mileage 60-1 Chester Subdivision.....	C.N.R.....	40	1,171 40
Two flashing light signals (2) and bell.....	Highway No. 17, Digby, N.S., mileage 21-61 Yarmouth Subdivision.....	D.A.Ry.....	40	2,310 00
Two flashing light signals (2) and bell.....	Highway No. 3 at Martin's Point, N.S., mileage 58-9, Chester Subdivision.....	C.N.R.....	40	1,249 24
Overhead bridge.....	Highway No. 1 in N.W. 1/4 Section 26, Township 17, Range 4, W3M at mileage 445, Swift Current Subdivision, Saskatchewan at Secretan Highway between Sections 13 and 14, Township 44, Range 5, W4M Alberta, mileage 128-28, Unity Subdivision.....	C.P.R.....	40	20,500 00
Improve sight lines.....	Depot Street, Montmagny, Quebec, mileage 78-0, Montmagny Subdivision.....	C.N.R.....	40	99 76
Two flashing light signals (2) and bell.....	Riviere du Sud Road, Montmagny, Quebec, mileage 77-8 Montmagny Subdivision.....	C.N.R.....	40	3,360 00
Two flashing light signals (2) and bell.....	St. David Street (Bras St. Nicholas Road) Montmagny, Quebec, mileage 77-6 Montmagny Subdivision.....	C.N.R.....	40	3,360 00
Changes in circuits of double bells and wigwags.....	Eglinton Avenue, Mount Dennis, Ontario.....	C.N.R.....	40	2,880 00
Two electrically operated short-arm gates, two flashing light signals (2) and bell, in lieu of manually controlled gates.....	James Street, Mount Dennis, Ontario.....	C.N.R.....	40	400 00
Improve grade of approaches to crossing.....	Adelaide Street and York Streets, London, Ont.....	C.N.R.....	40	240 00
Subway.....	Highway at mileage 73-90 Rimouski Subdivision, Parish of St. Arsene, Quebec.....	C.N.R.....	40	3,280 00
Overhead bridge.....	Crossing at mileage 77-4 Harcourt Subdivision, Parish of Newcastle, New Brunswick.....	C.N.R.....	40	864 00
Overhead bridge.....	Park Road between the City of Oshawa and the Township of East Whitty, mileage 301-14 Oshawa Subdivision, Ontario.....	C.N.R.....	40	31,280 00
Two flashing light signals (2) and bell.....	Highway No. 17, mileage 10-34 Nipigon Subdivision, Ontario at Selim Station.....	C.N.R.....	40	81,200 00
Two flashing light signals (2) and bell.....	Highway No. 7 about 3-08 miles south of Richmond Hill, Ont., at mileage 18-15 Bala Sub.....	C.P.R.....	40	57,200 00
		C.N.R.....	40	1,480 00

CONTRIBUTION FROM RAILWAY GRADE CROSSING FUND—*Conte.*

Protection	Location	Railway	Per Cent	Contributions \$ cts.
Two flashing light signals (2) and bell	Crossing in Town of Val St. Michel, Quebec, mile 12-33 Batiscan Subdivision	C.N.R.	40	1,688 00
Two flashing light signals (2) and bell	Highway No. 79 near Bothwell, Ontario, mileage 39-84 Chatham Subdivision	C.N.R.	40	2,640 00
Change operating circuits of flashing lights and bell	Pilette Road, Windsor, Ontario	C.N.R.	40	320 00
Improve grade of approaches to bridge by raising track	Bridge at Stamford Road at C.N.R. and N.Y.C. in Township of Stamford, Ontario	N.Y.C.	40	4,020 00
Four flashing light signals (4) and bell	Highway No. 7, Mill Street and Guelph Street in Town of Acton, Ontario, mileage 35-69 Brampton Subdivision	C.N.R.	40	4,564 00
Improve sight lines	Matchett's Crossing at mileage 27-78 Huntsville Subdivision, Ontario	C.N.R.	40	350 00
Two flashing light signals (2) and bell	Highway, No. 11 at Huntla mileage 11-75, Kapuskasing Subdivision, Ontario	C.N.R.	40	1,920 00
Two flashing light signals (2) and bell	Oxford Street crossing in Township of London, mileage 28-39 Thornedale Subdivision, Ontario	C.N.R.	40	1,440 00
Two flashing light signals (2) and bell	First crossing west of Bury Station, Quebec, mileage 39-38 Megantic Subdivision	C.P.R.	40	2,020 00
Two electric gates with flashing light signals and bells	Egerton Street, London, Ontario, mileage 76-44, Dundas Subdivision	C.N.R.	40	5,360 00
Improve sight lines	Northwest angle of crossing at Barradois, mileage 68-85 Sydney Subdivision, N.S.	C.N.R.	40	60 00
Four flashing lights and two bells, two flashing yellow lights and no-left turn signs, in lieu of wigwag and bell	Mileage 5 Greenfield Park Subdivision north of Churchill Boulevard, in the Town of Greenfield Park, Quebec	C.N.R.	40	2,800 00
Improve sight lines	Mileage 7-06 Chalk River Subdivision second public crossing east of station at Franktown, Ontario	C.P.R.	40	75 00
Highway diversion closing 2 crossings	Crossing between broken front lots Nos. 14 and 15 of the Township of Clarke Ontario	C.N.R.	40	7,440 00
Two flashing light signals (2) and bell	Crossing at Mountain Avenue, City of Fort William, Ontario	C.P.R.	40	4,920 00
Two flashing light signals (2) and bell	Fourth Street West, Calgary, Alberta	C.P.R.	40	150,000 00
Two flashing light signals (2) and bell	Bluewater Highway No. 21 at mileage 55-50 Kincairdine Subdivision south of Kincairdine, Ont.	C.N.R.	40	1,600 00
Two flashing light signals (2) and bell	Crossing at Maple Station, Ontario, mileage 18-1 Newmarket Subdivision	C.N.R.	40	2,120 00
Two flashing light signals (2) and bell	Crossing at Fourth Line Highway in the Parish of St. Valentin, Quebec	C.N.R.	40	2,120 00
Widen and raise south approaches to crossing	Crossing at mileage 22-07 Cornwall Subdivision in the Municipality of Ile Perrot, Quebec	C.N.R.	40	294 00
Two flashing light signals, one bell and two additional light units and special circuits	Crossing at Winona side road in the village of Winona, Ontario	C.N.R.	40	3,380 00

Two flashing light signals and one bell with special circuits.....	nn
Bridge.....	nn
Two flashing light signals (2) and bell.....	2,520 00 nn
Two flashing light signals (2) and bell.....	150,000 00 nn
Change in operating circuit of flashing light and bell.....	2,880 00 nn
Changes in track circuit of protection of flashing lights and bell.....	2,315 00 nn
Improve sight lines.....	nn
Two flashing light signals (2) and bell with two additional light units.....	260 00 nn
Improve sight lines.....	nn
Improve sight lines.....	190 00 nn
Improve sight lines.....	nn
Two flashing light signals (2) and bell.....	104 00 nn
Two flashing light signals and one bell with two additional light units.....	nn
One flashing light signal in the north west angle, one flashing light signal and bell in the northeast angle and four additional lights in the northeast angle....	nn
	3,100 00 nn
	nn
	480 00 nn
	nn
	720 00 nn
	nn
	40 00 nn
	2,720 00 nn
	nn
	1,800 00 nn
	nn
	2,900 00 nn
	nn

*In addition to the protections listed above six highway crossings were protected by flashing light signals and bells without contribution being made from Railway Grade Crossing Fund.

THE STATEMENT BELOW SHOWS THE DIFFERENT WORKS WHICH WERE APPROVED FOR CONSTRUCTION BY ORDER OF THE BOARD ON RECOMMENDATION OF THE ENGINEERING DEPARTMENT AFTER STUDY OF THE APPLICATIONS AND PLANS, CHECKING OF ESTIMATES, INVESTIGATION OF COMPLAINTS AND ACCIDENTS, AND IN MANY CASES INSPECTION ON THE GROUND AND CONFERENCES WITH THE INTERESTED PARTIES DURING THE YEAR 1950

Province	Highway crossings approved	Highway crossings closed	Construction and operation of branch lines and industrial spurs	Bridges and subways approved	Approval of operation over and under bridges	Highway Diversions	Less than standard clearance	Interlocking plants and changes to interlocking through interlocking plants	Crossings protected by flashing light signals and bell	Changes in operating circuits of flashing light signals and bells and wigwags	Electrically operated gates and flashing lights	Traffic lights at crossings	Railway Shops	Water, gas, oil and sewer pipes under railways	Mining tunnels	Establish sight lines	Location of telephone lines	Exempt from fencing and cattle guards	Operation through railway tunnel	Abandonment of operation of railway line	Approval and changes to automatic block signals	Pipes under Interprovincial pipe line	Transportation of gas or oil through pipe line	Construction of pipe line, oil and gas	Signal protection at bridges	Total
British Columbia.....	22	1	10	10	12	.....	.....	1	2	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	1	1	.....	66
Alberta.....	39	4	14	8	142	2	1	1	.....	1	.....	.....	.....	4	1	2	.....	.....	3	.....	1	1	2	8	1	236
Saskatchewan.....	23	14	3	.....	201	2	2	1	1	.....	.....	.....	.....	2	.....	.....	.....	.....	4	.....	1	1	1	8	.....	269
Manitoba.....	25	2	11	3	3	.....	1	.....	5	.....	1	.....	.....	2	.....	.....	.....	.....	1	.....	.....	.....	1	5	.....	63
Ontario.....	30	11	24	16	9	3	19	5	33	20	1	1	2	4	.....	8	10	8	1	3	5	.....	.....	.....	1	219
Quebec.....	24	5	15	9	5	2	5	2	1	13	.....	.....	.....	1	2	2	.....	14	.....	1	2	.....	.....	.....	.....	102
New Brunswick.....	7	4	.....	4	.....	1	4	.....	2	1	.....	.....	.....	.....	.....	2	.....	6	.....	.....	.....	.....	.....	.....	.....	31
Nova Scotia.....	2	.....	.....	.....	1	.....	3	.....	7	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16
Prince Edward Island.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Newfoundland.....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	7
Total.....	179	41	77	50	373	10	35	13	63	25	3	1	2	13	1	18	10	36	1	5	12	2	5	22	2	1,010

APPENDIX "E"

OTTAWA, Ontario,
February 14th, 1951.

P. F. BAILLARGEON, Esq.,
Secretary,
Board of Transport Commissioners,
OTTAWA, Ontario.

DEAR SIR:

1. I submit for the Board's Forty-Sixth Report, the Annual Report of the Operating Department for the year ended December 31st, 1950.

2. The report is divided as follows:

- Part I—Operating
- Part II—Mechanical
- Part III—Inflammable Liquids and Explosives
- Part IV—Fire Prevention

3. The accomplishment of the work, hereunder described, has necessitated the travelling of 484,849 miles by Officers of this Department.

4. During the year 1950 approximately 29,000,000 passengers travelled on Canadian Railways, the passenger train mileage for the year totalling approximately 45,000,000 miles.

5. PART I—OPERATING

Accidents attended by Loss of Life or Personal Injury

STATISTICS

<i>Accidents—</i>	
Total accident reports received from railways and investigated.....	3,011
Total persons killed.....	330
Total persons injured.....	3,547
<i>Fatalities—</i>	
Passengers.....	20
Employees.....	67
Trespassers and Others (includes fatalities due to Highway Crossing Accidents).....	243
Total.....	330
<i>Injuries—</i>	
Passengers.....	576
Employees.....	2,256
Trespassers and Others (includes injuries due to Highway Crossing Accidents).....	715
Total.....	3,547
<i>Highway Crossing Accidents—</i>	
Accidents.....	457
Persons killed.....	145
Persons injured.....	609

Detailed statistical data regarding accidents during the year 1950 is given in Statements Nos. 1, 2, 3 and 4, appended hereto.

REMARKS

Following direction of the Board the two major Canadian railways prepared a Uniform Code of Rules which has been the subject of detailed review by representatives of this Department in association with representatives of the Railway Companies. A number of changes in the interest of safety have been proposed by this Department and agreed to by the railways. Further action respecting the adoption of this Code of Rules is presently receiving consideration.

The Board's Inspection Staff is constantly reviewing train operation and compliance with General Train Operating Rules, dealing particularly with safety requirements.

In addition, the Inspection Staff have constantly reviewed the condition of station and passenger equipment for the purpose of ensuring that proper accommodation is provided for public use.

PART II—MECHANICAL

STATISTICS

<i>Motive Power—</i>	
Number of locomotives.....	5,271
Reports of Hydrostatic Tests, Removal of Lagging and Dome Caps, Testing of Staybolts, Washouts, Boilers and Appurtenances, etc., received.....	65,133
<i>Inspection of Motive Power—</i>	
Locomotive Inspections.....	9,090
Locomotives found defective.....	1,861
Defects.....	3,156
<i>Locomotive Boilers—</i>	
(Application for extension of time for removal of flues)	
Applications received from railways.....	202
Internal inspections made.....	185
Applications granted.....	182
Applications refused.....	3
<i>Stationary Boilers—</i>	
Number of stationary boilers.....	1,287
Inspection reports.....	3,075
Inspections made.....	500
Fire protective appliance inspection reports.....	2,313
<i>Safety Appliance and Equipment Inspections—</i>	
Freight cars inspected.....	65,079
Freight cars found defective.....	6,082
Defects.....	8,576
Passenger coaches inspected.....	5,885
Passenger coaches found with defects.....	494
<i>Inspection of Freight Cars for Correct Tare Weight—</i>	
Number of cars inspected.....	12,363
Number of cars found overdue for weighing for tare.....	564
<i>Inspection of Passenger cars for Excessive Air Brake Piston Travel—</i>	
Number of cars inspected.....	2,632
Number of cars with excessive Piston Travel.....	16
<i>Inspection of Freight Cars for Excessive Air Brake Piston Travel—</i>	
Number of cars inspected.....	18,524
Number of cars with excessive Piston Travel.....	1,487

Detailed statistical data for the year 1950 is given in statements Nos. 5, 6, 7 and 8, appended hereto.

REMARKS

Inspection of Safety Appliances and Car Equipment

The work coming within this category is largely carried on under the provisions of Section 298 of the Railway Act and the Board's General Orders Nos. 102, 128, 261, 270, 346, 458, 461, and 515. In this connection reference is made to detailed Statements Nos. 5 and 6. The inspection of freight and passenger cars for excess brake piston travel has received considerable attention resulting in improved condition of cars; progress continues in the matter of maintenance of draft and buffing gear, the question of improved maintenance for various types of tank cars and their appurtenances has been given considerable attention; the construction of new mail and express cars has been followed closely by Inspectors of the Board, and the inspection of freight cars has resulted in the removal from service of a number of cars in deteriorated condition. Considerable inspection has likewise been carried out in connection with train lighting, heating and air-conditioning of passenger equipment.

Inspection of Motive Power

The inspection of locomotive and car equipment entails considerable time and labour, both on the ground and at headquarters, in Ottawa, at which point the work of recording, checking and filing of the numerous reports filed by the Inspectors is carried on, and subsequent correspondence with railway companies involved with a view to having the defects remedied as promptly as possible in the interests of public safety and of employees engaged in train operations. In addition, Inspectors of the Board have been riding locomotives to determine the condition of motive power under actual working conditions.

The investigation of the problem of locomotive water gauge glasses has been continued during the year with the co-operation of the National Research Council and has involved detailed laboratory experiments. The report of the Council in this connection is anticipated shortly, following a review of which the matter will be discussed with the Railway Companies.

Newfoundland Railway

During the year representatives of the Department made extensive field surveys of rolling stock, fire prevention equipment, maintenance procedures and general railway practices on the Newfoundland Division.

The data accumulated is being used as a basis in determining future policy with respect to the application of the Board's Regulations to this narrow gauge railway, it being recognized that Railway operations in this area present special problems necessitating extensive study.

Revision of General Orders

During the year consideration was given to the revision of a number of General Orders, in order that the regulations of the Board might be in keeping with existing practices. This policy will be continued.

Air Brake Inspections

During the year 1950 the staff of the Department was implemented by the addition of two Air Brake Inspectors.

Special attention has been given the observance of the prescribed terminal and other brake tests on passenger and freight trains.

Appropriate action has been taken with the railway officials concerned in order that necessary improvements might be effected.

In addition, extensive inspection of air brake equipment has been carried out on all regions.

Diesel Electric Locomotives

The following tables indicate the number of Diesel electric and oil fired steam locomotives operated by the two major Canadian railways:

Diesel Electric Units

Year Ending	Total Number of Units	
	C.N.R.	C.P.R.
1947.....	75	55
1948.....	111	84
1949.....	148	132
1950.....	177	190

Oil Fired Steam Locomotives

Year Ending	C.N.R.	C.P.R.
1947.....	100	122
1948.....	112	130
1949.....	190	230
1950.....	249	261

This development has created new problems which have necessitated attention by the Department; special consideration has been given to the acceptability of safety appliances applied to Diesel locomotives by the various manufacturers.

Discussions carried out with the railways and manufacturers have resulted in the preparation of draft Report forms; these are presently under review by the Railway Association.

The use of this type of motive power, necessitated special training for the Mechanical staff, in order to maintain the inspection service at the highest standard. All concerned have now completed Diesel training courses.

Smoke Abatement

The question of smoke abatement continues to receive the attention of the Department. It is apparent a number of additional cities are becoming interested in the question and have approached the Board with respect to the necessity for approval of regulations governing smoke emission.

Inspection and Testing of Air Reservoirs, other than on Locomotives

Pursuant to General Orders Nos. 576 and 714, 6,222 report forms of inspection were filed and checked in compliance with the Regulations covering 4,618 air reservoirs.

7.

PART III—INFLAMMABLE LIQUIDS AND EXPLOSIVES

Inflammable Liquids: Handling and Storage on and Adjacent to Railway Property.

Under the provisions of General Order No. 716 and Circular No. 241, there were 447 applications received for approval of location and of changes to installations.

These, together with 13 applications in abeyance from the previous year, were investigated and disposed of as follows:

Cancelled.....	11
In abeyance.....	48
Approved and Orders issued.....	401
	<hr/> 460

The examination of over 1,400 plans and profiles were made and inspection on the ground was necessary in many instances.

The 401 applications which were approved covered 2 refineries, and 399 bulk storage plants, 152 of which were new installations.

The increased use of Diesel motive power resulted in many applications being received from the Railway Companies for approval of oil storage facilities. These installations are included in the above totals.

Particulars of installations are as follows:

Number of Companies making Installations	Number of Installations 1950	Number of Tanks Installed in 1950	Total Storage Capacity in Gallons (Imp.)
78	401	889	32,799,252

Liquefied Petroleum Gases: Handling and Storage on or Adjacent to Railway Property

Under the provisions of General Order No. 597, fourteen (14) applications were approved, covering the installations of 32 storage containers, having a total capacity of 735,250 gallons (Imperial).

The plant located at Frobisher, Sask., was abandoned.

A number of inspections of installations were made during the year.

Regulations for the Transportation of Explosives and Other Dangerous Articles by By Freight (Railway) and Specifications for Shipping Containers

General Orders Nos. 738, 740, 742, 746 and Order No. 75643 were issued during 1950 in connection with the above regulations.

Supplements Nos. 2 and 3 to these Regulations were issued during the year and further revision of the Regulations to provide for the transportation and handling of new dangerous commodities is in process and will be incorporated in Supplement No. 4.

Regulations for the Transportation by Express of Acids, Compressed Gases, Inflammables, Oxidizing Substances, Explosives, etc., and Specifications for Shipping Containers

General Order No. 747 was issued to amend the fireworks section of these Regulations.

Cylinders for the Handling of Compressed Gases

Continued interest has been shown by manufacturers for the production of various types of compressed gas cylinders in Canada as well as importation of cylinders. This has necessitated conferences and discussions with the manufacturers and inspection agencies concerning the appropriate rules and regulations.

During the year three Canadian firms were producing cylinders to Specification 3E, 4B and 4BA. Two other firms were preparing to manufacture cylinders to Specification 8 and 4BA and will be in production early in 1951.

8. PART IV—FIRE PREVENTION

Inspection

Organization—Under the co-operative arrangements inaugurated in 1912 with the various Dominion and Provincial Forest Services, 254 officers and men of such services were under appointment as Inspectors for the Board, distributed as follows:

Newfoundland, Department of Natural Resources.....	1
Nova Scotia, Department of Lands and Mines, Forest Service.....	22
New Brunswick, Department of Land and Mines, Forest Service.....	10
Quebec, Department of Lands and Forests, Forest Protection Service.....	32
Ontario, Department of Lands and Forests, Division of Forest Protection.....	88
Manitoba, Department of Mines and Natural Resources, Forest Service.....	6
Saskatchewan, Department of Natural Resources and Industrial Development, Office of Director of Forests.....	4
Saskatchewan, Department of Natural Resources and Industrial Development, Office of Director of Forests, Fire Guard Inspection, Prairie Lines.....	2
Alberta, Department of Lands and Mines, Office of Director of Forestry.....	12
Government of Canada, Department of Resources and Development, National Parks Bureau.....	3
British Columbia, Department of Lands, Forest Service.....	73
Yukon Territory, Royal Canadian Mounted Police.....	1

Of the above, eight officers were given appointments as Locomotive Fire Appliance Inspectors, distributed as follows:

Nova Scotia, Department of Lands and Forests.....	2
New Brunswick, Department of Lands and Mines, Forest Service.....	1
Quebec, Department of Lands and Forests, Forest Protection Service.....	1
British Columbia, Department of Lands, Forest Service.....	4

During the fire season of 1950, these officers inspected the fire appliances of 1,780 locomotives. In addition, fire appliances were inspected on 3,389 locomotives by the Board's permanent staff, making a combined total of 5,169 locomotives inspected in connection with railway fire prevention.

During the fire season, an Inspector of this Department covered the Canadian National Railways in Newfoundland, consulting with the Railway and Provincial authorities and Forest Protective Association with respect to all phases of Railway fire prevention.

Railway Fire Patrols

The Fire Patrol Requirements, under the terms of paragraph 29 of General Order No. 548, were addressed to all the railways concerned.

Statistics showing railway forested mileage upon which patrols are prescribed follows:

Total miles of railway classified as being in forested territory for fire protection purposes.....	14,645.83
Special section patrols prescribed on.....	5,362.90
Special velocipede patrols prescribed on.....	201.96
Special power speeder patrols prescribed on.....	1,846.28
Other type special patrol prescribed on.....	70.00
Total miles on which special patrol prescribed.....	7,481.14
Total special patrolmen (estimated).....	937
Average number of miles of track per patrolman.....	7.98
Total miles in forested territory on which no special patrol required, detection, reporting and extinguishing of fires being a part of the regular duties of the section forces and other employees.....	7,164.69

Fire Statistics

Within the 14,646 miles of railway under the Board's jurisdiction classified as forested territory, 451 fires occurred during the fire season of 1950. 358 fires or 79.38 per cent of the total are attributed to railway causes, 64 fires or 14.19 per cent to other known causes and 29 fires or 6.43 per cent were of unknown origin. These fires burned a total of 7,814 acres with forest and other property loss valued at \$17,535. Of the area, 4,079 acres were young forest growth, 846 acres merchantable timber, 827 acres slash or old burn not restocking and 2,062 acres of other classes of land.

In addition to the foregoing, there were reported 116 fires originating and burning in ties in the track which did not spread or cause damage other than to track ties.

Of the 358 fires attributed to railway causes, 321 were charged to locomotives and 37 to employees of the railways. The 321 fires attributed to locomotives comprise approximately 89·66 per cent of the total railway caused fires, burned approximately 74·65 per cent of the total area, and caused 85·79 per cent of the estimated total monetary loss of forest and other property destroyed by railway caused fires.

The 37 fires attributed to employees comprise approximately 10·34 per cent of the total number of railway caused fires, burned approximately 9·88 per cent of the total area, and caused 4·08 per cent of the estimated total monetary loss of forest and other property destroyed by railway caused fires.

64 fires originating within 300 feet of the track in forested territory are attributed to known causes other than railway. Of these, 46 are charged to campers and travellers, 9 to settlers and 9 to other known causes. 19 of these fires were incipient, 42 burned $\frac{1}{4}$ acre to 10 acres each, and 3 burned more than 10 acres. These fires burned 238 acres of young forest growth, 10 acres of merchantable timber, 18 acres of slash or old burn not restocking, and 764 acres of other classes of land, with a total damage to forest and other property estimated at \$1,398.

29 fires of unknown origin originated within 300 feet of track, burned a total of 951 acres, with forest and other property loss valued at \$1,094.

Forest valuations given above are based on stumpage values.

Detailed statistics are shown in statement No. 9 appended hereto.

Right-of-Way Clearing

During the 1950 fire season, a large percentage of the forested mileage along the railways was inspected and reported on by the Board's District Fire Inspectors. These reports indicate that although a considerable amount of brush disposal has been completed, there still remains, especially in the Eastern Provinces, considerable accumulation.

Fireguard Requirements

In accordance with the Requirements, 4,481·75 miles of fireguards were constructed or maintained in uncultivated lands (fence grazing and wild lands) in non-forested sections of the Prairie Provinces.

FIREGUARDS, 1950

Railway	Mileage both sides of track to be accounted for exclusive of approved exemptions	Fireguard mileage constructed or maintained during year	Percentage completion
Canadian National.....	3,026·50	1,834·00	60·60
Canadian Pacific.....	3,482·50	2,627·75	75·46
Northern Alberta.....	23·20	20·00	86·21
	6,532·20	4,481·75	68·61

Respectfully submitted,

F. S. HARTLE

Director of Operation.

STATEMENT No. 1.—PASSENGERS, EMPLOYEES AND OTHERS KILLED AND INJURED
ON RAILWAYS UNDER THE BOARD'S JURISDICTION FOR YEAR ENDED
DECEMBER 31, 1950

Name of Railway	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Canadian National.....	18	312	35	1,296	108	381	1,591	161	1,989
Canadian Pacific.....	2	249	31	880	105	227	1,260	138	1,356
Algoma Central & Hudson Bay.....			1	2	3	4	5	4	6
British Columbia Electric.....						6	4		6
Chesapeake & Ohio.....				7	4	9	12	4	16
Dominion Atlantic.....				13	1	11	19	1	24
Esquimalt & Nanaimo.....		1		4	1	7	10	1	12
Essex Terminal.....						7	3		7
Grand River.....		1		3	2	12	12	2	16
Great Northern.....				3	1	6	6	1	9
Lake Erie & Northern.....					1	5	4	1	5
London & Port Stanley.....						1	1		1
Michigan Central.....					4	8	6	4	8
Midland Railway of Manitoba.....				2		1	3		3
Montreal & Southern Counties.....		4		1	1	6	6	1	11
New York Central.....				11	1	5	13	1	16
Niagara, St. Catharines & Toronto.....						1	1		1
Nipissing Central.....						1	1		1
Northern Alberta.....		2		16	3	2	22	3	20
Oshawa.....				2		4	5		6
Quebec Central.....		2		1	1	5	5	1	8
Quebec Railway, Light & Power.....				1	2	2	3	2	3
Sydney & Louisburg.....					4	2	5	4	2
Toronto, Hamilton & Buffalo.....		5		13	1	2	13	1	20
White Pass & Yukon.....				1			1		1
Totals.....	20	576	67	2,256	243	715	3,011	330	3,547

STATEMENT No. 2.—PASSENGERS, EMPLOYEES AND OTHERS KILLED AND INJURED,
AND NATURE OF ACCIDENTS, FOR THE YEAR ENDED DECEMBER 31, 1950

Character of Accident	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Derailement.....		9		12			12		21
Collision head-on.....	16	164	11	71			7	27	236
Collision rear-end.....		62	2	32		1	17	2	96
Collision in yard.....				2			1		2
Collision at Diamond Crossing.....		5		1			1		6
Collision with cars account open switch.....		5	1	14			2	1	19
Equipment struck in yard during switching or transfer movement in- cluding sideswipes of individual equipment in yards.....				20			15		20
Sideswipe.....		5	5	12			9	5	17
Public highway crossing protected by gates....				1	7	7	9	7	8
Public highway crossing protected by bell....					2	9	7	2	9
Public highway crossing protected by bell and wig-wag.....					20	65	57	20	65
Public highway crossing protected by flashing light signals and bells				5	7	26	22	7	31
Public highway crossing protected by watch- man.....			1	2	1	9	6	2	11
Public highway crossing unprotected.....		5		32	107	448	356	107	485
Private crossing.....				2	7	31	29	7	33
Trespassing.....					87	79	163	87	79
Working on or about engine				316		1	310		317
Miscellaneous.....	22		2	281	2	14	310	4	317
Adjusting couplers, coup- ling and uncoupling...			2	55			57	2	55
Run down by engine or car between stations.....			9	4			12	9	4
Handcar—Accidents caus- ed by handcar, motor or velocipede.....			1	158		4	101	1	162
Handcar, motor-car, vel- ocipede struck by train			6	39		1	25	6	40
Crawling between cars, over couplers.....				9			9		9
Passing between cars, be- tween couplers.....			2	2			4	2	2
Struck by engine or cars on adjoining track.....				24		1	25		25
Struck by switch stand, water spout, mail crane, or other projec- tion.....				18			18		18
Crushed between cars and buildings, lumber piles				7			7		7
Explosion of locomotive boiler.....			1	2			2	1	2
Getting on or off passenger trains.....	2	80			1	1	84	3	81
Injured when taking coal or water.....				40		1	39		41
Rock slides, or other obstructions on track.		6	1	11			11	1	17
Rough coupling.....		8		80		4	64		92
Riding or pilot or foot- board of engine.....			1	20			21	1	20
Obstructions, overhead and on ground.....			1	13			14	1	13
Falling off top of car.....				24			24		24
Falling between cars.....			3	2			5	3	2

STATEMENT No. 2—PASSENGERS, EMPLOYEES AND OTHERS KILLED AND INJURED, AND NATURE OF ACCIDENTS, FOR THE YEAR ENDED DECEMBER 31, 1950—*Cont.*

Character of Accident	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Application and handling of air brakes, stopping of trains, adjusting slack.....		24		123		2	139		149
Employees getting off train.....				194		1	195		195
Employees boarding train.....				108			108		108
Slipped on ice.....		2		35		1	38		38
Doors closing and other minor accidents in baggage cars and coaches.....		172		127		2	299		301
Run down by engine or cars at stations or in yards.....	1		13	40	1	2	57	15	42
Passing too close around end of string of cars.....				1			1		1
Caught in frog, guard rail, or switch rod.....				2			2		2
Caught by engine or car while throwing switch.....				1			1		1
Falling off side or end ladders of cars.....			2	68		1	71	2	69
Handbrake — Accidents while working handbrake.....				91			91		91
Handling freight or baggage.....				33			33		33
Loading and unloading O.C.S., material.....			1	35			36	1	35
Work train equipment.....				33	1	1	22	1	34
Cars moved while being loaded or unloaded.....				1			1		1
Carmen working on or under cars on running track when moved.....			1	1			2	1	1
Coupling or uncoupling hose.....			1	21			22	1	21
Turning angle-cock.....				9			9		9
Coach window falling.....		4					4		4
Loads shifting in transit or switching.....				7			7		7
Falling or jumping off passenger train between stations.....	1	3					4	1	3
Cars running away, not under control.....				6		1	7		7
Individual derailment of equipment in yard tracks.....				6			4		6
Caught between running boards.....				2			2		2
Engine or cars colliding with portion of own train left on main track.....				1			1		1
Totals.....	20	576	67	2,256	243	715	3,011	330	3,547

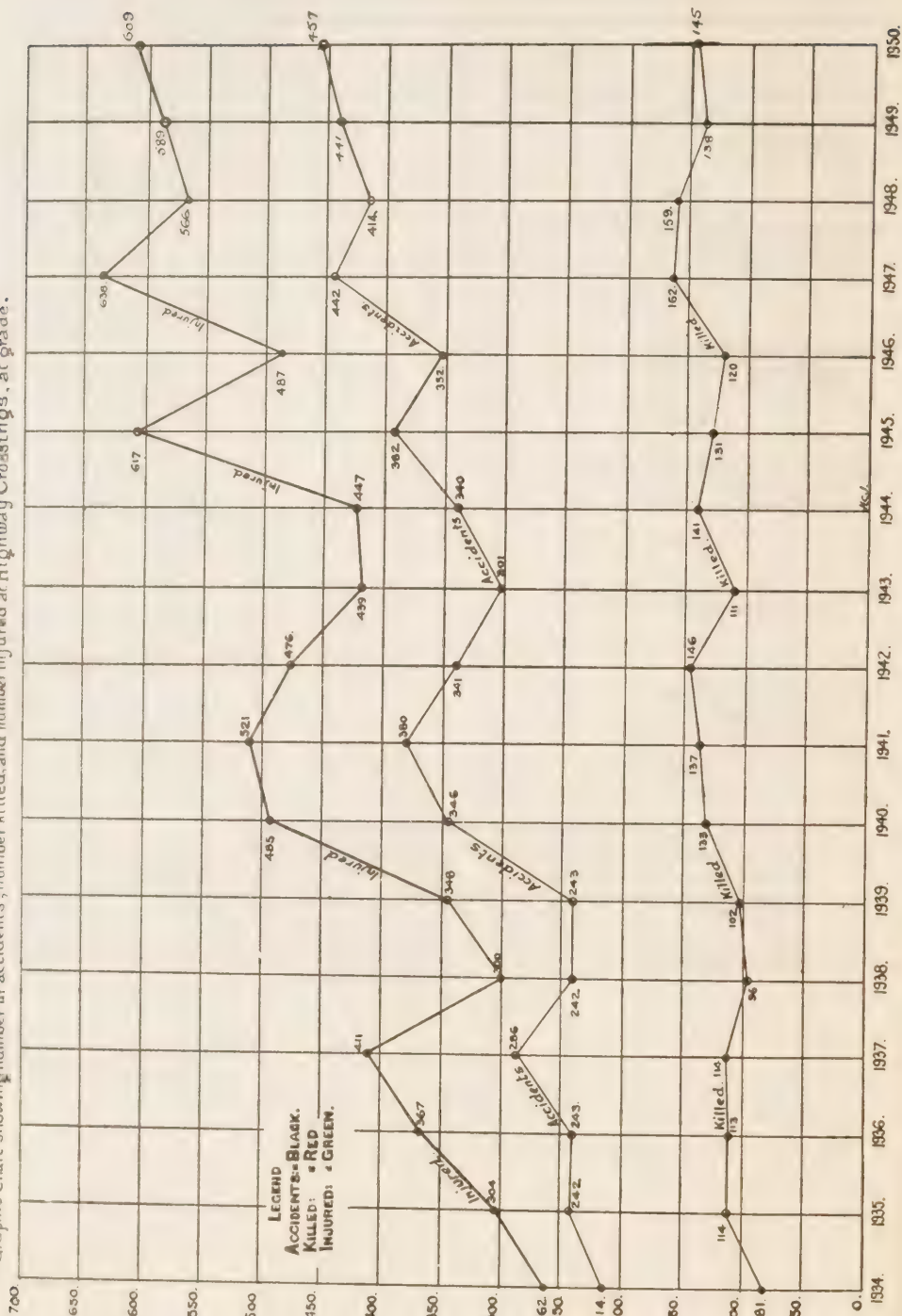
STATEMENT No. 3.—CONTRIBUTING FACTORS INVOLVED IN VARIOUS CLASSES OF CROSSING ACCIDENTS FOR YEAR 1950

	Acci- dents	Killed	Injured
<i>Motor Vehicles Struck by Train—</i>			
Daylight hours.....	158	46	199
Night hours.....	98	42	124
Total.....	256	88	323
<i>Horse-Drawn or Other Vehicles Struck by Train—</i>			
Daylight hours.....	3	3	1
Night hours.....	1	1	—
Total.....	4	4	1
<i>Pedestrians Struck by Train—</i>			
Daylight hours.....	22	12	12
Night hours.....	4	2	2
Total.....	26	14	14
<i>Motor Vehicles Ran Into Side of Train—</i>			
Daylight hours.....	40	7	56
Night hours.....	113	32	179
Total.....	153	39	235
<i>Accidents in Which Track Cars Involved—</i>			
Daylight hours.....	18		36
Total.....	18		36
<i>Total Number of Accidents—</i>			
Daylight hours.....	241	68	304
Night hours.....	216	77	305
Grand Total.....	457	145	609

Number of accidents which occurred at crossings protected by Gates.....	9
Number of accidents which occurred at crossings protected by Bell.....	7
Number of accidents which occurred at crossings protected by Bell and Wigwag....	57
Number of accidents which occurred at crossings protected by Flashing Light Signals and Bells.....	22
Number of accidents which occurred at crossings protected by Watchman.....	6
Number of accidents which occurred at crossings Unprotected.....	356
Total.....	457

STATEMENT No. 4

Graphic Chart showing number of accidents; number killed and number injured at Highway Crossings, at grade.



STATEMENT No. 5.—NUMBER OF FREIGHT CARS INSPECTED, SHOWING CARS DEFECTIVE FOR THE YEAR ENDED DECEMBER 31, 1950

Railway	Cars Inspected	Cars Defective
Canadian National.....	32,528	2,761
Canadian Pacific.....	30,130	3,079
Algoma Central and Hudson Bay.....	300	39
Chesapeake and Ohio.....	50	5
Dominion Atlantic.....	287	56
Esquimalt and Nanaimo.....	381	35
Michigan Central.....	245	5
Midland Railway of Manitoba.....	32	6
New York Central.....	180	6
Northern Alberta Railway.....	125	12
Quebec Central.....	132	16
Sydney and Louisburg.....	60	16
Toronto, Hamilton and Buffalo.....	350	7
British American Oil Company.....	25	9
Imperial Oil Company.....	250	26
Radio Oil Company.....	4	4
Totals.....	65,079	6,082

STATEMENT No. 6.—NUMBER OF PASSENGER CARS INSPECTED, SHOWING CARS DEFECTIVE FOR THE YEAR ENDED DECEMBER 31, 1950

Railway	Cars Inspected	Cars Defective
Canadian National.....	2,597	251
Canadian Pacific.....	3,195	224
Dominion Atlantic.....	37	9
Esquimalt and Nanaimo.....	6	—
London and Port Stanley.....	15	4
Michigan Central.....	15	3
Northern Alberta.....	10	—
Quebec Central.....	10	3
Totals.....	5,885	494

STATEMENT No. 7.—NUMBER OF LOCOMOTIVES INSPECTED, AND NUMBER OF DEFECTS ON RAILWAYS, FOR THE YEAR ENDED DECEMBER 31, 1950

Classification	Total Defects
Air Compressor.....	52
Arch Tubes.....	3
Ashpans or Mechanism.....	1
Axles.....	1
Blow-off Cocks.....	68
Boiler Checks.....	12
Boiler Shell.....	28
Brake Equipment.....	395
Cabs, or Cab Windows.....	37
Cab Aprons or Decks.....	14
Cab Cards.....	8
Coupling or uncoupling Devices.....	25
Crossheads, Guides, Pistons or Piston Rods.....	94
Crown Bolts.....	2
Cylinders, Saddles or Steam Chests.....	14
Cylinder Cocks or Rigging.....	22
Domes or Dome Caps.....	6
Draft Gear.....	124
Draw Gear.....	22
Driving Boxes, Shoes, Wedges or Pedestals.....	83
Fire Box Sheets.....	9
Frames, Tail Pieces or Braces, Locomotive.....	42
Frames, Tender.....	7
Gauges or Gauge Fittings, Air.....	71
Gauges, Steam.....	48
Gauge Cocks.....	17
Grate Shakers, and Fire Doors.....	3
Handholds.....	105
Injectors inoperative.....	1
Injectors and connections.....	53
Inspections or tests not made as required.....	16
Lateral motion.....	100
Lights, cab or classification.....	13
Lights, headlight.....	7
Lubricators and appurtenances.....	6
Mudrings.....	3
Packing nuts.....	7
Packing, Piston Rod and Valve Stem.....	7
Pilot or Pilot Beams.....	51
Plugs or Studs.....	88
Reversing Gear.....	7
Rods, main and side, Crank Pins or Collars.....	8
Safety Valves.....	14
Sanders.....	18
Springs or Spring Rigging.....	332
Staybolts.....	8
Staybolts broken.....	2
Steam pipes.....	51
Steam valve.....	66
Steps.....	131
Tender.....	75
Throttle or dry pipes.....	63
Trucks, engine.....	62
Trucks, tender.....	160
Valve motion.....	61
Washout plugs.....	39
Train Control.....	1
Water glass, fittings or shields.....	83
Wheels.....	138
Miscellaneous.....	26
Fire Protective appliances.....	146
Total Defects.....	3,156

	Locomotives Inspected	Locomotives Defective
Canadian National.....	4,466	925
Canadian Pacific.....	3,689	730
Miscellaneous.....	935	206
Total.....	9,090	1,861

STATEMENT NO. 8.—STATEMENT OF BOILER EXPLOSIONS AND CROWN SHEETS DAMAGED FOR THE YEAR 1950

Railway	Date	Engine No.	Place	Remarks
			<i>Boiler Explosions</i>	
			Nil	
			<i>Crown Sheets Damaged</i>	
Canadian National.....	January 16.....	CN 2489.....	Rimouski Subdivision, Mileage 45, Quebec.....	Crown sheet over-heated due to low water.
Canadian National.....	July 10.....	CN 1394.....	Lac Remi—St. Jerome, Quebec.....	Crown sheet over-heated due to low water.
Canadian National.....	February 2.....	CN 1273.....	Winnipeg, Manitoba.....	Crown sheet over-heated due to low water.
Canadian National.....	August 6.....	CN 6209.....	Capreol, Ontario.....	Crown sheet over-heated due to low water.
Canadian National.....	December 27.....	CN 4301.....	Edmonton, Calder, Alberta.....	Crown sheet over-heated due to low water.
Canadian Pacific.....	January 3.....	CP 2438.....	North Portal, Saskatchewan.....	Crown sheet over-heated due to low water.
Canadian Pacific.....	April 3.....	CP 5452.....	Chapleau, Ontario.....	Water low on crown due to blow-off cock left open when fire lit.
Canadian Pacific.....	July 9.....	CP 5429.....	Laggan Subdivision, Mileage 33-0, Alberta.....	Crown sheet over-heated due to low water.
Canadian Pacific.....	August 6.....	CP 2309.....	MacTier Subdivision, Mileage 14-1, Ontario.....	Crown sheet over-heated due to low water.

SUMMARIES

Boiler Explosions

Nil

Crown Sheets Damaged

Canadian National.....	5
Canadian Pacific.....	4
Total.....	9

TRANSPORT COMMISSIONERS FOR CANADA

	Canadian National (Atlantic Region) (a)	Canadian National (Central Region)	Canadian National (Western Region)	Canadian Pacific (Eastern Region) (b)	Canadian Pacific (Prairie Region)	Canadian Pacific (Pacific Region) (c)	Algonia Central and Hudson Bay	Northern Alberta	Great Northern	Miscellaneous (d)	Totals
<i>Fires of Railway Origin—</i>											
<i>Number by causes—</i>											
Locomotive, Class A fires.....	41	19	11	20	.....	23	1	2	.....	.....	17
Locomotive, Class B fires.....	33	24	19	41	.....	26	1	11	.....	10	170
Locomotive, Class C fires.....	7	14	2	5	2	.....	.....	4	.....	.....	34
Employees, Class A fires.....	.....	1	2	1	.....	.....	.....	1	.....	1	6
Employees, Class B fires.....	8	9	2	2	.....	2	1	2	.....	.....	26
Employees, Class C fires.....	.....	1	3	1	.....	.....	.....	.....	.....	.....	5
Total, Class A fires.....	41	20	13	21	.....	23	1	3	.....	1	123
Total, Class B fires.....	41	33	21	43	.....	28	2	13	.....	10	196
Total, Class C fires.....	7	15	5	6	2	.....	.....	4	.....	.....	39
Total, all railway fires.....	89	68	39	70	7	51	3	20	.....	11	358
<i>Areas burned (acres) —</i>											
Young forest growth.....	1,667	910	142	181	45	29	1	4	.....	1	2,980
Merchantable timber.....	13	760	54	1	8	.....	.....	.....	.....	.....	836
Slashing or old burn.....	739	10	.....	7	.....	.....	.....	3	.....	20	779
Other classes of land.....	192	142	357	286	10	40	3	194	.....	14	1,238
Total.....	2,611	1,822	553	475	63	69	4	201	.....	35	5,833
<i>Value of property destroyed—</i>											
Young forest growth.....	\$ 7,469	\$ 1,681	\$ 354	\$ 223	\$ 63	\$ 11	\$	\$ 4	\$	\$ 5	\$ 9,810
Standing timber.....	130	2,782	162	1	34	.....	.....	.....	.....	.....	3,109
Forest products.....	.....	120	.....	.....	.....	.....	.....	.....	.....	.....	120
Other property.....	100	985	109	30	.....	500	.....	200	.....	80	2,004
Total.....	7,699	5,568	625	254	97	511	.....	204	.....	85	15,043
<i>Known Causes other than Railway—</i>											
<i>Number of causes—</i>											
Campers and Travellers, Class A fires.....	3	1	2	3	1	3	.....	1	.....	.....	14
Campers and Travellers, Class B fires.....	7	9	4	8	.....	2	.....	.....	.....	1	31
Campers and Travellers, Class C fires.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Settlers, Class A fires.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Settlers, Class B fires.....	1	4	1	.....	.....	.....	.....	1	.....	.....	7
Settlers, Class C fires.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	2
Other known causes, Class A fires.....	1	1	3	1	.....	1	.....	.....	.....	.....	5
Other known causes, Class B fires.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	5
Other known causes, Class C fires.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	4
Total, Class A.....	4	1	5	4	1	3	.....	1	.....	.....	19
Total, Class B.....	9	13	7	8	.....	3	.....	1	.....	1	42
Total, Class C.....	1	2	.....	.....	.....	.....	.....	.....	.....	.....	3
Total.....	14	16	12	12	1	6	.....	2	.....	1	64

<i>Areas burned (acres) —</i>									
Young forest growth.....	227	2	1	5	.....	1	.....	.....	238
Merchautable timber.....	6	.....	.....	2	.....	.....	.....	.....	10
Slashing or old burn. ....	.....	18	.....	.....	.....	.....	.....	.....	18
Other classes of land.....	59	688	5	9	.....	.....	.....	.....	764
Total.....	292	708	6	16	.....	1	.....	.....	1,030
<i>Value of property destroyed —</i>									
Young forest growth.....	\$ 908	\$ 15	\$	\$	\$	\$	\$	\$	\$ 923
Standing timber.....	60	.....	.....	52	.....	.....	.....	.....	117
Forest products.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Other property.....	337	.....	1	10	10	.....	.....	.....	358
Total.....	968	352	1	62	10	.....	.....	.....	1,398
<i>Fires of Unknown Origin—</i>									
Number—									
Class A.....	3	1	3	2	.....	3	.....	.....	12
Class B.....	1	1	6	1	.....	2	.....	.....	12
Class C.....	1	2	1	.....	.....	.....	.....	.....	5
Total.....	5	4	10	3	.....	5	.....	.....	29
<i>Areas burned (acres) —</i>									
Young forest growth.....	23	832	2	1	.....	3	.....	.....	861
Merchautable timber.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Slashing or old burn.....	.....	.....	30	.....	.....	.....	.....	.....	30
Other classes of land.....	7	26	10	1	.....	.....	.....	.....	60
Total.....	30	858	42	2	.....	3	.....	.....	951
<i>Value of Property destroyed—</i>									
Young forest growth.....	\$ 95	\$ 832	\$ 54	\$	\$	\$ 1	.....	.....	\$ 982
Standing timber.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Forest products.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Other property.....	.....	112	.....	.....	.....	.....	.....	.....	112
Total.....	95	944	54	.....	.....	1	.....	.....	1,094

(a) Includes Province of Newfoundland. (b) Includes Dominion Atlantic Railway. (c) Includes Esquimalt and Nanaimo Railway.

(a) Includes Province of Newfoundland. (b) Includes Dominion Atlantic Railway.
(c) Includes Esquimalt and Nanaimo Railway.
(d) Includes the following lines: Cumberland Railway and Coal Co.; Maritime Coal, Railway and Power Co.; Sydney and Louisburg; White Pass and Yukon; Winnipeg Central.

NOTE.—No fires were reported during 1950 as originating within 300 feet of track in forest sections along the following lines:—Maine Central; Spokane International. The Temiscouata Railway was absorbed into the Edmundston Division, Atlantic Region, Canadian National Railways.

Class A fires are those which cover an area less than one-fourth acre, regardless of amount of damage.

Class B fires are those which cover an area of one-fourth acre to ten acres.

Class C fires are those which cover an area over ten acres.

APPENDIX "F"

February 20, 1951.

MEMORANDUM TO:

Mr. P. F. BAILLARGEON,
Secretary,
Board of Transport Commissioners,
OTTAWA.

Submitted herewith are five copies of the Bureau's report for the year ended December 31st, 1950.

G. A. SCOTT,
Director.

BUREAU OF TRANSPORTATION ECONOMICS

The demand for economic studies in the field of transportation continued to increase throughout 1950 and it was necessary to devote the time of nearly all staff to immediate requests and projects. This left available very little time for basic research in transportation which was considered a primary objective when the Bureau was first organized.

Requests and work assignments originated about equally in the Board of Transport Commissioners and in the Air Transport Board, while an increasing number came from other departments including the Department of Transport, Resources and Development, Trade and Commerce, and Labour.

Railways

Waybills submitted by the railways in connection with the Board's Waybill Study were processed and tabulated during 1950. This involved checking the movement of approximately 100,000 carload and less-than-carload shipments. The "Carload All-Rail Traffic" study was published in August, 1950. The "Less-Than-Carload" study was completed in December. In addition thereto "Rail-Lake-Rail" and "Water-Rail" studies were completed.

The published carload study dealt with the movement of 25,439 carloads of freight. Distribution was shown under class and type of rate by rate territories and by commodity groups. The tabulations listed the number of carloads, revenue, weight, ton miles, car miles, average haul, average revenue per ton mile, average revenue per car mile and extra charges. Some 500 copies of the study have been distributed.

Other investigations and studies were made on such aspects of railway operation as agreed charges, abandonments, pensions, and accounting. Additional subjects were dealt with in connection with the application of the railways for a 20% increase in freight rates.

Monthly financial and statistical returns of rail carriers were processed, tabulated and analysed in regular reports to the Board. A preliminary tabulation for the year 1950 shows that operating revenue increased by 7.0% to \$957,132,000 from \$894,397,264 in 1949. Operating expenses increased by 0.2% to \$832,753,000 from \$831,456,446 in 1949. The resultant net operating revenue was \$14,379,000 in 1950, nearly twice the 1949 figure of \$62,940,818.

It would appear that the increased revenues were basically associated with higher rates since revenue ton miles decreased 2.0% and revenue passenger miles decreased 10.7%. A summary of railway statistics from 1938 to 1950 is tabulated below:

Year	Operating Revenues	Operating Expenses	Net Operating Revenue	Operating Ratio	Revenue Freight Ton-Miles	Revenue Passenger Miles
	\$	\$	\$		(000)	(000)
1938.....	336,833,400	295,705,638	41,127,762	87.8	26,834,697	1,783,178
1939.....	367,179,095	304,373,285	62,805,810	82.9	31,464,991	1,751,973
1940.....	429,142,669	335,287,503	93,835,156	78.1	37,898,196	2,176,468
1941.....	538,291,947	403,735,542	134,558,405	78.0	49,982,467	3,205,542
1942.....	663,610,570	485,783,584	177,826,986	73.2	56,153,953	4,989,296
1943.....	778,914,565	560,597,204	218,317,361	72.0	63,915,074	6,525,064
1944.....	796,636,786	634,774,021	161,862,763	79.7	65,928,079	6,873,188
1945.....	774,971,360	631,497,562	143,473,798	81.5	63,349,095	6,380,155
1946.....	718,501,764	623,529,473	94,972,292	86.8	55,310,308	4,648,558
1947.....	785,177,920	690,281,049	94,356,871	88.0	60,143,035	3,732,777
1948.....	875,833,590	808,127,528	67,706,062	92.3	59,408,930	3,660,646
1949.....	894,397,264	831,456,446	62,940,818	93.0	56,338,231	3,193,174
1950 (Est.).....	957,132,000	832,753,000	124,379,000	87.0	55,215,597	2,852,050

Airways

An appreciable part of the time of the Audit and Air Divisions was devoted to the preparation of reports respecting applications for air licenses. In addition thereto the travelling auditors completed audits for the major licensed operators of Eastern Canada.

More extensive projects included an Equipment Survey of "A", "B" and "C" Carriers, a Survey of Charter Operators, studies of individual carriers, and area studies for Board Hearings.

The Bureau is responsible for the preparation of recurrent reports on Canadian aviation for the International Civil Aviation Organization. Two semi-annual airline traffic surveys were conducted during March and September in conjunction with the U.S. Civil Aeronautics Board.

Recurrent monthly and annual reports of air carriers were processed and tabulated. The preliminary tabulation for 1950 shows that operating revenues increased by 19.8% to \$47,422,000 from \$39,581,021 in 1949. Operating expenses increased by 12.6% to \$45,465,000 resulting in net operating revenues of \$1,957,000 in 1950 as contrasted with a loss of \$799,577 in 1949. These figures reflected traffic increases of 22.4% in passengers, 30.6% in goods and 9.1% in mail. Total ton miles increased by 18.8%. A summary for all carriers is shown for the years 1947, 1948, 1949 and 1950.

	1947	1948	1949	1950 (Est.)
Operating Revenues.....\$	26,834,086	33,712,329	39,581,021	47,422,000
Operating Expenses.....\$	29,321,490	34,799,670	40,380,598	45,465,000
Net Operating Revenue.....\$	Dr. 2,487,404	Dr. 1,087,341	Dr. 799,577	1,957,000
Revenue Passengers.....No.	693,560	880,407	998,067	1,222,000
Revenue Goods.....Tons	15,039	15,973	15,319	20,000
Revenue Mail.....Lbs.	5,908,775	8,893,632	12,141,798	13,245,000
Total Load Ton-Miles.....	29,449,044	39,780,289	48,555,692	57,699,000

Waterways

In addition to the processing and tabulation of carrier reports, a traffic survey for the Mackenzie River System was completed. A report was prepared on Potential Traffic for the St. Lawrence Seaway.

Communications

The Bureau conducted investigations and analyses arising from applications to the Board for increased rates by the British Columbia Telephone Company and the Bell Telephone Company of Canada.

Pipelines

Activity in this field consisted mainly of preparations to meet anticipated problems in this relatively new field of transportation in Canada. Discussions were held with the company representatives and a tentative classification of accounts and reports was prepared.

BUREAU OF TRANSPORTATION ECONOMICS,
February 20, 1951.

APPENDIX "G"

STATEMENT SHOWING TOTAL NUMBER OF APPLICATIONS MADE TO THE BOARD UNDER THE VARIOUS SECTIONS OF THE RAILWAY ACT, ALSO COMPLAINTS AND REPORTS FILED, FOR THE YEAR ENDED DECEMBER 31, 1950

Sections of the Railway Act	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Appeals to Supreme Court, Sec. 52.....	0	0	1	0	0	0	0	0	0	0	0	0	1
Gas pipes, Sec. 162.....	0	0	2	0	1	0	1	0	0	0	0	0	4
Deviations, Changes, Sec. 165A.....	0	0	1	0	0	0	0	0	0	0	0	0	1
Removal of Stations, Sec. 179.....	0	0	0	0	0	1	0	0	0	1	0	1	3
Branch line, Secs. 180-7.....	2	1	0	0	0	0	0	1	1	1	0	0	8
Removal of Stations Buildings, Sec. 188.....	3	4	2	2	3	1	9	6	0	0	0	3	35
Station Buildings, Sec. 188.....	3	4	2	2	3	1	9	6	0	1	1	3	35
Station Agents, Sec. 188.....	1	3	0	0	3	6	1	1	2	0	2	1	20
Station Accommodation, Sec. 188.....	0	0	1	1	0	0	0	0	0	0	0	0	2
Operation of trains over siding, Sec. 193.....	0	0	0	0	0	3	3	0	2	0	0	0	8
Viaducts, Sec. 248.....	1	0	0	0	0	0	1	0	1	0	0	0	3
Stations, Freight Sheds destroyed by fire.....	1	0	0	0	0	0	0	0	0	0	0	0	1
Subways, Sec. 248.....	4	0	5	0	1	2	3	0	0	5	3	0	23
Bridges, Sec. 251.....	9	3	13	12	6	10	13	5	10	14	6	3	104
Clearances, Sec. 250.....	3	1	4	1	2	2	4	4	0	3	0	4	28
Railway lines and junctions, Sec. 252.....	0	1	0	0	0	0	0	1	0	0	0	0	1
Highway Crossings, Sec. 256.....	9	8	19	10	18	15	26	19	25	22	25	15	211
Culverts, Sec. 268.....	0	0	0	1	0	0	0	0	0	0	0	0	1
Ditches, Sec. 268.....	1	0	0	1	0	0	0	0	0	0	0	0	1
Sewers, Sec. 268.....	0	0	0	1	2	1	0	0	1	0	0	0	5
Farm and Private crossings, Secs. 272-3.....	0	2	4	5	2	4	3	1	3	0	2	2	28
Cattle guards, Sec. 274.....	0	0	0	1	1	0	0	0	0	0	0	0	2
Accident Reports, Sec. 286.....	0	0	0	0	3	2	4	0	1	2	1	0	13
Protection at crossings, Sec. 287.....	71	54	55	51	50	43	40	51	34	62	67	58	636
Adjustment in Rates.....	22	13	25	29	13	14	22	25	19	23	30	26	271
Train Service, Secs. 302-4.....	0	1	2	1	0	2	1	0	2	0	0	0	9
Whistling by locomotives, Sec. 308.....	1	2	0	2	1	2	1	0	1	0	1	0	11
Accommodation for Traffic, Sec. 312.....	0	1	1	1	1	0	0	0	0	1	0	1	6
Freight Classification.....	0	2	3	2	5	3	7	3	2	1	4	1	32
Reduced fares, Sec. 345.....	0	0	0	0	0	0	0	1	1	0	0	0	3
Contracts, etc., Sec. 348.....	0	0	0	0	1	0	0	0	1	0	0	0	2
Dangerous Commodities.....	0	1	0	0	0	0	0	0	1	0	0	0	2
Carriage by Express, Sec. 364.....	0	0	0	0	0	0	0	0	0	0	0	0	1
Telephone wire crossings, Sec. 373.....	7	4	7	6	9	9	6	9	10	7	15	8	97
Fencing of right-of-way, Sec. 374.....	0	0	1	0	1	2	1	0	1	0	2	0	8
	0	0	0	1	1	1	0	0	1	0	1	0	5

Telephone Agreements, Sec. 375.....	3	19	7	12	4	9	4	21	0	19	11	0	100
Telephone Service, Sec. 375.....	0	2	2	1	0	0	12	0	0	0	7	0	24
Telephone Tolls, Sec. 375.....	0	0	0	0	2	0	1	0	0	0	0	0	3
Gasoline Tanks, Secs. 360-366.....	54	37	42	21	37	55	32	34	29	25	29	36	431
Complaints.....	4	7	8	2	13	5	6	6	4	6	11	8	80
Requests.....	0	0	0	1	0	2	0	0	0	0	0	0	3
Inquiries.....	1	3	5	1	6	3	3	3	1	1	1	2	37
Miscellaneous.....	0	2	0	1	2	1	0	4	0	0	0	0	10
Licence by water.....	3	2	6	3	1	0	0	1	0	0	0	0	16
Agreed Charges.....	0	0	0	0	0	0	2	3	0	0	1	0	6
Pipe line Act.....	0	1	3	1	0	1	2	1	3	16	3	0	31
Accidents submitted.....	(285	250	236	204	220	217	290	226	261	262	283	277	3,011)
Totals.....	200	173	221	176	192	201	208	210	157	201	223	170	2,332

APPENDIX "H"

GENERAL ORDER No. 736

In the matter of Regulations respecting the installation of or changes to all types of automatic block signal or centralized traffic control systems:

File No. 45417

WEDNESDAY, the 4th day of January, A.D. 1950.

HON. MR. JUSTICE M. B. ARCHIBALD, *Chief Commissioner.*

HUGH WARDROPE, *Asst. Chief Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

It is ordered that the following regulations respecting the installation of or changes to all types of automatic block signal or centralized traffic control systems be, and they are hereby prescribed for the observance of every railway company within the legislative authority of the Parliament of Canada:

1. Without the approval of the Board, no company shall install or make any major change in automatic block signal systems or centralized traffic control.

2. With any application for such approval, the company shall send to the Secretary of the Board three sets of a combined plan and profile, on a scale of 400 feet to one inch horizontal and 20 feet to one inch vertical, showing tracks, gradients and alignments for the territory on which the signals are to be installed, and with the location for proposed signals shown thereon.

3. The symbols used on these combined plans and profiles to indicate signals and appurtenances shall be those approved by the Signal Section of the Association of American Railroads.

4. The apparatus shall, so far as possible, be so installed and circuits so arranged that failure of any part of the system affecting the safety of train operation will cause all signals affected to give the most restrictive indications which conditions require.

5. Signals shall be located preferably to the right of and adjoining the track to which they refer.

6. Signal indications shall be given by positions, by coloured lights, by flashing lights, or by a combination thereof. A single white light shall not be used for a proceed indication.

7. Signals shall be spaced at least stopping distance apart or, where not so spaced, an equivalent stopping distance shall be provided by two or more signals arranged to display restrictive indications approaching signal where such indications are required.

8. Signals shall be automatically controlled by continuous track circuits on main track and on other track where a speed of thirty miles an hour is permitted.

9. Signals governing movements over any switch shall be so controlled that proper restrictive indications will be displayed when any such switch is not in proper position for the desired movement.

10. On track signalled for movements in both directions, signals shall be so arranged and controlled that proper restrictive indications will be provided to protect both following and opposing movements.

11. The circuits shall be so installed that:

- (a) So far as possible, the failure of any part of a circuit affecting the control of a signal will not result in the signal displaying a more favourable indication than intended.
- (b) When a train, engine, or car is in a block, a switch is misplaced or its points are not in proper position or an independently operated fouling point derail equipped with a switch circuit controller is misplaced or is not in derailing position or a track or signal control relay is in de-energized position, each signal governing a train movement into the block will display its proper restrictive indication.
- (c) When there is no train, engine, or car in a block, and all switches and independently operated fouling point derails equipped with switch circuit controllers are in normal position, and all track and signal control relays are in energized position, each signal governing a train movement into the block will display its proper indication for approaching train to proceed.

12. Signal control and electric locking circuits shall not be broken through the contacts of instruments designed primarily for indicating or annunciating purposes in which an indicating element attached to the armature is arranged so it can in itself cause improper operation of the armature.

13. The battery or power supply for each signal control relay circuit where an open line circuit or a common return circuit is used, shall be located at the end of the circuit farthest from the relay.

14. Signal control relay shall be controlled by track circuits extending through the entire block.

15. As soon as the installation is completed, it may be placed in operation. An application shall immediately be made to the Board for inspection.

And it is further ordered that General Order No. 734, dated the 19th day of October, 1949, be, and it is hereby, rescinded.

HUGH WARDROPE,
Assistant Chief Commissioner,

GENERAL ORDER No. 737

In the matter of application of Pilots, Footboards and combination of same for locomotives in Road, Yard, Transfer and combination services:

TUESDAY, the 31st day of January, A.D. 1950.

HUGH WARDROPE, *Asst. Chief Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

File No. 21351.1

It is ordered as follows:

1. *Pilots and Footboards:*

Locomotives in Road, Yard, Transfer and combination services must be equipped with pilots or footboards or a combination of both, dependent upon their regular assignment, of a design acceptable to the Board, applied on the following basis:

(1) *Locomotives in Road Service (normal road operation).*

Locomotives in Road Service (normal road operation) must be equipped with a pilot located at the front having a minimum height above the rail of not less than three inches (3") and a maximum of not more than six inches (6"), securely attached, adequately braced and maintained in a safe and suitable condition for service.

Locomotives of a design capable of normal operation in either direction, such as Diesel electric or electric units, or any type of locomotive regularly assigned to such road service as to necessitate the running of tender first must be equipped at the front and rear with a pilot or combination pilot and footboards, except that in the case of Diesel "A" and "B" units application is required only on the front end of "A" units.

(2) *Locomotives in Yard Switching and Transfer Service.*

Locomotives in Yard Switching and Transfer Service must be equipped with footboards at the front and rear. The height from the top of rail to top of tread must be not more than twelve (12"), nor less than nine inches (9").

Footboards.

(a) Footboards may be constructed in two sections, provided that the majority of horizontal space on each side of the coupler is protected by the footboards.

Each footboard must be supported by two metal brackets not less than 1" x 4" in section, each bracket must be attached to the buffer beam, end sill, frame or plate forming the end structure of the locomotive or tender, by not less than two seven eighth inch ($\frac{7}{8}$ ") bolts.

(b) *Material.*—Metal of serrated anti-skid design, constructed with sufficient open area to prevent accumulation of snow and ice on the tread surface.

(c) *Alternative Construction.*—Wood, preferably two inches (2") thick but not less than one and one half inches ($1\frac{1}{2}$ ") in thickness; this type of footboard must not be cut or notched at any point, outer corners may however be radiused or slightly beveled.

(d) *Dimensions*.—The footboards must be of sufficient width to provide adequate foot space, notwithstanding projecting grab irons or other devices, and must be not less than ten inches (10") wide and three feet (3' 0") in length.

(e) *Location*.—Front and rear, extending not less than eighteen inches (18") outside gauge of straight track.

(f) *Foot Stops*.—Foot Stops, not less than four inches (4") in height, must be applied above the tread, at the back and each inner end; it is preferable that any openings between the footboards and underside of buffer beam or frame be covered for the protection of employees.

(3) *Locomotives in Combination Road and Yard Switching Service.*

(a) Locomotives operating in road and yard switching services must be equipped at the front and rear with combination pilots and footboards, conforming to the dimensions specified in Clauses 2 and 3.

(b) *Footboards*.—Footboards must be metal, serrated anti-skid design, constructed with sufficient open area to prevent accumulation of snow and ice on the tread surface.

(c) *General Specifications*.—The combination pilot, footboards and associated supports, must be of adequate strength and of an appropriate design, acceptable to the Board for the requirements of road service, maintained in a safe and satisfactory operating condition.

2. That General Order No. 434, dated November 16, 1927, and that portion of the Regulations with respect to Railway Safety-Appliance Standards, approved by General Order No. 102, dated February 17, 1913, relating to Footboards under the heading "Steam Locomotives Used In Switching Service", be, and they are hereby, rescinded.

HUGH WARDROPE,
Assistant Chief Commissioner.

GENERAL ORDER NO. 738

In the matter of the application of The Railway Association of Canada for approval of Supplement No. 2 to C.T.C. No. 2, R.A.C. No. 2 (Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight and Specifications for Shipping Containers):

File No. 1717

WEDNESDAY, the 8th day of February, A.D. 1950.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

W. J. PATTERSON, *Commissioner.*

Upon reading the submissions filed—

It is ordered that, effective March 15, 1950, the said Supplement No. 2 to C.T.C. No. 2, R.A.C. No. 2 (Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight and Specifications for Shipping Containers), on file with the Board under file No. 1717, be, and it is hereby, authorized for the observance of the railway companies subject to the jurisdiction of the Board which accept explosives and other dangerous articles for carriage.

HUGH WARDROPE,
Assistant Chief Commissioner.

GENERAL ORDER NO. 739

In the matter of the General Order of the Board No. 735, dated November 28, 1949:

Case No. 538

TUESDAY, the 14th day of February, A.D. 1950.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

It is ordered that General Order No. 735, dated November 28, 1949, be, and it is hereby, amended by striking out paragraph numbered 2 thereof and by substituting therefor the following paragraph:

“2. That this Order shall come into force on a date to be fixed by further Order of the Board.”

HUGH WARDROPE,
Assistant Chief Commissioner.

GENERAL ORDER NO. 740

In the matter of General Order No. 699, dated the 13th day of February, 1947:

File No. 1717.15

WEDNESDAY, the 15th day of February, A.D. 1950.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

Upon reading the submissions filed—

It is ordered that General Order No. 699, dated the 13th day of February, 1947, be, and is hereby, rescinded.

HUGH WARDROPE,
Assistant Chief Commissioner.

GENERAL ORDER NO. 741

In the matter of the General Order of the Board No. 89, dated February 17, 1912:

File No. 1750

TUESDAY, the 28th day of February, A.D. 1950.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

W. J. PATTERSON, *Commissioner.*

Upon reading the submissions filed—

It is ordered that General Order No. 89, dated February 17, 1912, be, and it is hereby, amended by inserting the words, "or, a whistle (or other approved device) on the plow which can be sounded from the plow", in paragraph numbered 1 of the said Order, immediately after the words, "(a) Direct connection between the plow and the steam whistle of the locomotive so that the man in the plow shall be able to give all proper signals."

A. SYLVESTRE,
Deputy Chief Commissioner.

GENERAL ORDER No. 742

In the matter of the Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight, and Specifications for Shipping Containers, approved by General Order No. 722, dated January 21, 1949:

File No. 1717.12.205

FRIDAY, the 3rd day of March, A.D. 1950.

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

W. J. PATTERSON,, *Commissioner.*

Upon reading the submissions filed—

It is ordered that the Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight, and Specifications for Shipping Containers, approved by General Order No. 722, dated January 21, 1949, be, and they are hereby, amended by adding the following paragraph immediately following paragraph (g) of Section 302 of the said Regulations:

“(h) Foodstuffs in metal cans charged with soluble non-liquefied compressed gas, provided the pressure in the container does not exceed 105 pounds per square inch absolute at 70° F. or 140 pounds per square inch absolute at 130° F. The metal container must be capable of withstanding without bursting a pressure of two times the pressure of contents at 70° F. or $1\frac{1}{2}$ times the pressure of the contents at 130° F., whichever is greater.”

A. SYLVESTRE,
Deputy Chief Commissioner.

GENERAL ORDER No. 743

In the matter of Uniform Rules governing the determination of visual acuity, colour perception, and hearing of railway employees:

File No. 1750.17

SATURDAY, the 1st day of March, A.D. 1950.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

W. J. PATTERSON, *Commissioner.*

It is ordered that the railway companies subject to the jurisdiction of the Board adopt and put into force the following rules:

UNIFORM RULES GOVERNING THE DETERMINATION OF
VISUAL ACUITY, COLOUR PERCEPTION, AND HEARING OF
RAILWAY EMPLOYEES

1. Each person selected to make examinations must first pass the examination under an oculist or optometrist designated by the company, such oculist or optometrist then to instruct candidate on the use of the instruments requisite for such examination and certify to candidate's qualifications as an examiner.

2. Each examiner shall be provided with:

- (a) a set of Snellens test types, with at least three cards of each size of letters shown in different combinations (a single line on each card) for testing acuteness of vision;
- (b) an Association of American Railroads standard reading card for testing near vision;
- (c) a Holmgren or Thompson colour-selection test; Pseudo-Isochromatic Chart and instructions for use of same;
- (d) a "Williams" lantern, or one similarly constructed, and instructions for use of same;
- (e) a card or shade for testing each eye separately;
- (f) a trial frame, with one pair of plus two diopter lenses, one pair of plus one diopter lenses and one pair of plane lenses and one opaque disc; and
- (g) examination forms and certificates.

3. Examinations shall be conducted in a well lighted room or car in which a distance of twenty feet can be measured from test type, or face of lantern, to candidate. Shades or curtains shall be provided in order to darken room of car for lantern test.

4. The test type should be in good light, the bottom of the card about on a level with the eye. Place the candidate twenty feet from the card, and ask him to read the type with both eyes open then cover one of his eyes with a card or shade held firmly against the nose, taking care not to let it press against the eyeball, and instruct him to read with the other eye such type as may be indicated. Each eye shall be tested separately.

5. (a) Examiners are reminded that the normal-eyed should read the twenty-foot (or 6 metre) letters at 20 feet, in which case the visual power should be expressed by the fraction 20-20. Should a candidate be unable to read the twenty-foot letters at 20 feet, but be able to read the 30-foot letters, the result should be indicated by the fraction 20-30. If he can only read the forty-foot letters record should be 20-40 etc.

(b) Candidate must be able to read the test print in paragraph 2 of the standard reading card at a distance of from fourteen to eighteen inches to pass the near vision test. Candidates, except applicants under classes A, B and C, may use glasses for this test. Further tests should be made by having the candidate read written train orders.

6. (a) In testing vision, colour perception, and hearing only those concerned in such test, other than the examiner and candidate shall be permitted to be present.

(b) Where the word "applicant" is used in these rules it applies to a person who is subject to the ENTRANCE TO SERVICE requirements.

(c) Where the word "candidate" is used it applies to anyone taking examination including those referred to as "applicants".

7. (a) The result of each examination must be shown on a prescribed form, a record to be preserved for reference by the examiner, and copies as required to be forwarded to officers concerned for inspection, record and file.

(b) Officers concerned must keep proper check, to ensure re-examination of all employees when due, must see that all employees who should be examined by an oculist or optometrist under the rules are required to take such examinations promptly, and that glasses provided are approved by those designated under clause 13.

(c) Examiners will, upon request of candidate, issue to each person who passes a satisfactory examination, a certificate to that effect, and will if desired furnish employees who fail to pass, a written statement of their rating and cause of failure.

(d) Local officers must report to the (each railway to fill in officer to whom report shall be made) all cases wherein an employee appears to be disqualified, giving full information as to result of examination.

8. All applicants for entrance to service under the standards specified (except for classes E and F) must take such examination without the use of glasses for distant vision.

9. When the distant vision of an employee can be improved appreciably by the aid of glasses he must wear them while on duty.

10. An employee who requires glasses to bring distant vision up to standard specified must wear them while on duty and must carry an extra pair, which will bring his vision up to standard specified, and will be examined with each pair.

11. All employees, while on duty, excepting those indoors, who are required to wear glasses for distant vision must use the rimmed spectacle or goggle form, and those indoors should preferably use the rimmed spectacle form. This paragraph to be applicable for new glasses and replacements.

12. Automobile goggles, fitted with glass which will not injuriously affect either acuteness of vision or colour perception, may be used by employees in engine or freight train service for the protection of the eyes.

The use of authorized safety spectacles or goggles which will afford protection against flying particles, glare, or both, and which will not affect acuteness of vision or colour perception is recommended.

13. Glasses required to bring either near or distant vision up to standards specified must be approved by the oculist, optometrist, or examiner designated by the company.

14. Applicants having a squint, or who are cross-eyed, or otherwise not normal-eyed, shall not be accepted. Examiners who suspect a case of double vision should use some simple test to determine its presence.

15. An employee who fails to pass acuity standard specified, will not be disqualified from service without an examination by an oculist designated by the company. An employee failing to pass indoor tests for acuteness of vision, shall, upon request be examined by a committee of two, one of whom will be appointed by the General Manager or other designated officer of the Company and the other by the General Chairman concerned. This committee will give due consideration to border-line cases respecting visual acuity and recommend the service, if available, to which the employee may be assigned.

16. When promotion standard is not specified, an employee applying for transfer from one kind of service to another, or being promoted, must pass entrance examinations of class he desires to enter.

Exceptions

(a) those who have been injured in service, or who have been in continuous service for at least two years, may be transferred to positions of switch tenders and occupations under Class F;

(b) those who have been transferred from one position to another under Class E, upon passing the respective re-examination standards.

17. Employees who revert from class D, to class C by direction, or consent of the Company, will be re-examined under class D standard.

18. Applicants for entrance to service in classes A and C will undergo additional test to ascertain if far-sighted to the extent of two diopters. Examiners will use combinations in trial frames representing plane and convex lenses, varying the tests so that the candidate's former experience or knowledge obtained from others may be valueless. If an applicant reads without difficulty the twenty-foot letters at 20 feet through convex lenses of 2D he will not be considered satisfactory.

19. Examiner shall examine the colour perception of each eye separately using such equipment and standards of tests as are approved by the Board. These shall be made by a lantern designed for this purpose, by the Holmgren or Thompson Worsteds or the Pseudo-Isochromatic method. The latter shall consist of 18 plates in book form as in effect at date of this Order. Defective red-green vision shall be indicated when incorrect responses are given to five or more plates. Candidates upon re-examination or for promotion will not be disqualified if they pass any two of these tests.

20. (a) An applicant who has defective colour perception shall not be accepted into service in any of the classes specified in the Standards of Visual Acuity.

(b) An employee who has defective colour perception shall not be retained in any of the classes specified in the Standards of Visual Acuity except in positions to be designated by the company where he will not be required to use or determine the colour of signals.

21. No employees shall be disqualified from service by reason of defective colour sense without an examination by an oculist designated by the Company.

22. In examination of hearing (which shall be with human voice) each ear shall be tested separately, and the candidate should not see the movement of the examiner's lips.

23. An applicant for entrance to service must be able to hear and repeat an ordinary conversation, or names and numbers, spoken in a conversational tone, at a distance of 20 feet, in which case the hearing shall be expressed by the fraction 20/20. When conversation can be heard at only ten feet, the hearing should be expressed by the fraction 10/20. If indicated a test of hearing by the use of the audiometer may be carried out.

24. Employees will not be retained in any of the classes specified if hearing is less than 15-20 in one ear and 5-20 in the other, or less than 10-20 in each ear, except in positions to be designated by the company, where the defect will not prevent the proper and safe performance of their duties.

25. Employees included in the standards of Visual Acuity must be re-examined as follows:

- (a) All classes as nearly as possible within two years after the last previous examinations;
- (b) employees in engine, train or yard service are required to wear glasses to bring distant vision to standards specified, and all employees who have less than 20/70 vision in either eye with or without glasses, must be re-examined annually;
- (c) after any accident in which they are concerned, which may have been caused by defective vision, colour sense or hearing,
- (d) after any serious accident or illness, or severe inflammation of the eye or eyelid;
- (e) before promotion. This does not mean that a freight conductor should be examined previous to his appointment as passenger conductor, or an engineman in freight service previous to appointment in passenger service, but that freight brakeman shall be examined before being promoted to freight conductor, and firemen being promoted to engineer;
- (f) employees with hearing less than 20-20 in either ear must be examined annually, or more frequently if deemed necessary; and
- (g) for an individual employee at such periods as may be designated by the company's Chief Medical Officer or Visual Examiner.

26. (a) Employees in classes A and B who fail to qualify after having been examined by a company oculist as provided shall, upon request, be given an outside or field test, using standard operating signals as may be agreed by the committee provided for in these rules.

(b) In making the tests candidates shall approach the signals from a point where they are unable to see them, and not be credited with being able to read signals unless they can promptly call changes as made in position of arms and colour of lights.

(c) The tests with and without glasses shall be made at distances varying from 5,000 to 200 feet. These tests should be with each eye separately and also with combined vision.

(d) Committee to record the different distances at which the employee being examined can promptly see the signals, and shall forward this information, together with their recommendations as to the service to which he may be assigned to the General Superintendent.

STANDARDS OF VISUAL ACUITY

CLASS A

Enginemen, Motormen, Firemen, Motormen's Helpers, Road Service.

Entrance to Service

Not less than 20-20 in each eye tested separately without glasses. Must not accept a plus 2D lens, nor use glasses for near vision.

Promotion

20-30 combined, with or without glasses, provided there is 20-30 in one eye and not less than 20-40 in the other eye, with or without glasses.

Re-examination

20-30 combined, with or without glasses, provided there is 20-30 in one eye and not less than 20-50 in the other eye, with or without glasses.

CLASS B

Enginemen, Motormen, Firemen, Outside Hostlers, Motormen's Helpers, Yard or other service designated by the company.

NOTE: (The term "outside Hostlers" applies to hostlers handling engines between passenger stations and roundhouses or yards or on main tracks).

Entrance to Service

Same standard as for Class A.

Promotion

Same standard as for Class A.

Re-examination

20-30 in one eye, regardless of vision in the other, with or without glasses.

CLASS C

Brakemen in passenger, freight, or yard service, Yard Helpers, Switch Tenders.

Entrance to Service

Not less than 20-20 in each eye tested separately without glasses. Must not accept a plus 2D lens, nor use glasses for near vision.

Promotion

20-30 combined, with or without glasses, provided there is 20-30 in one eye and not less than 20-40 in the other, with or without glasses. (From Class C to Class D.)

Re-examination

20-30 combined with or without glasses, provided there is 20-30 in one eye and not less than 20-50 in the other, with or without glasses; or 20-20 in one eye, regardless of vision in the other, with or without glasses.

CLASS D

Conductors in passenger, freight or yard service, Yardmasters, Yard Foremen, Train Baggage-men.

Entrance to Service

Not less than 20-30 in each eye without glasses.

Re-examination

Not less than 20-40 in one eye and not less than 20-50 in the other eye, with or without glasses; or 20-30 in one eye and not less than 20-70 in the other eye, with or without glasses; or 20-20 in one eye, regardless of vision in the other, with or without glasses.

CLASS E

Train despatchers, Station Agents and Telegraph and Telephone Operators, concerned with the movement of trains, Signal Foremen and Maintainers, Signalmen, Bridge and Track Foremen, Drawbridge Tenders, Car Inspectors.

Entrance to Service

Not less than 20-30 in one eye and not less than 20-40 in the other eye, with or without glasses.

Re-examination

Not less than 20-40 in one eye and not less than 20-70 in the other eye, with or without glasses; or 20-30 in one eye, regardless of vision in the other eye, with or without glasses.

CLASS F

Crossing Flagmen, Watchmen, Gatemen.

Entrance to Service

Not less than 20-40 in each eye with or without glasses.

Re-examination

Not less than 20-50 in one eye and not less than 20-70 in the other with or without glasses; or 20-30 in one eye regardless of vision in the other with or without glasses.

CLASS G

Employees operating snow plow, spreader, or other railway maintenance equipment moving on track, coupled ahead of locomotive, shall be examined under rules and standard specified for re-examination Class A.

27. The provisions of this Order will apply to all American railways operating in Canada in so far as movements lying wholly within the jurisdiction of the Board are concerned. In the case of international movements the company may use standards which are higher and which are in use on American railways.

It is further ordered that the following General Orders be, and they are hereby, rescinded: No. 449 dated September 8, 1927; No. 498 dated April 6, 1932; No. 526 dated June 29, 1934; No. 638 dated January 28, 1943; No. 643 dated February 26, 1943; and No. 644 dated April 14, 1943.

HUGH WARDROPE,
Assistant Chief Commissioner.

GENERAL ORDER No. 744

In the matter of General Order of the Board No. 743:

File No. 1750.17

FRIDAY, the 16th day of June, A.D. 1950.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

W. J. PATTERSON, *Commissioner.*

It is ordered that General Order No. 743 be, and it is hereby, amended by striking out the first paragraph under the heading "Class E", and substituting the following:

"Train Despatches whose duties require the necessary standard of Visual Acuity and Color Perception, Station Agents and Telegraph and Telephone Operators concerned with the movement of trains, Signal Foremen and Maintainers, Signalmen, Bridge and Track Foremen, Drawbridge Tenders, Car Inspectors."

HUGH WARDROPE,
Assistant Chief Commissioner.

GENERAL ORDER No. 745

In the matter of the General Order of the Board No. 592, dated September 28, 1939:

File No. 9473.

FRIDAY, the 8th day of September, A.D. 1950.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

W. J. PATTERSON, *Commissioner.*

It is ordered that General Order No. 592, dated September 28, 1939, be, and it is hereby, amended by striking out the second and third sentences of clause 17 of the said Order and substituting the following therefor:

"The wages and expenses of such inspector shall be paid by the applicant upon receipt from the Railway Company of a statement showing in reasonable detail the particulars of such wages and expenses, provided that in the case of a municipal corporation desiring to lay a pipe under the railway on a highway which is senior to the railway, the Railway Company shall pay its own Inspectors."

HUGH WARDROPE,
Assistant Chief Commissioner.

GENERAL ORDER No. 746

In the matter of the application of The Railway Association of Canada for approval of Supplement No. 3 to C.T.C. No. 2, R.A.C. No. 2, (Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight and Specifications for Shipping Containers):

File No. 1717.

FRIDAY, the 6th day of October, A.D. 1950.

Hon. Mr. JUSTICE M. B. ARCHIBALD, *Chief Commissioner.*

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, *Deputy Chief Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

W. J. PATTERSON, *Commissioner.*

Upon reading the submissions filed—

It is ordered

1. That, effective November 1, 1950, the said Supplement No. 3 to C.T.C. No. 2, R.A.C. No. 2 (Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight and Specifications for Shipping Containers), on file with the Board under file No. 1717, be, and it is hereby, authorized for the observance of the railway companies subject to the jurisdiction of the Board which accept explosives and other dangerous articles for carriage.

2. That General Orders Nos. 728, 730 and 742, dated respectively August 12, 1949, September 9, 1949 and March 3, 1950, be, and they are hereby, rescinded.

M. B. ARCHIBALD,
Chief Commissioner.

GENERAL ORDER No. 747

In the matter of proposed amendments to the Regulations for the Transportation by Express of Acids, Compressed Gases, Inflammables, Oxidizing Substances, Explosives, etc., and Specifications for Shipping Containers, approved by General Order No. 678, dated the 3rd day of December, 1945.

File No. 1717.12.209.

WEDNESDAY, the 8th day of November, A.D. 1950.

HUGH WARDROPE, *Assist. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

W. J. PATTERSON, *Commissioner.*

Upon reading the submissions filed—

It is ordered that the Regulations for the Transportation by Express of Acids, Compressed Gases, Inflammables, Oxidizing Substances, Explosives, etc., approved by General Order No. 678, dated the 3rd day of December, 1945, be, and they are hereby amended by (a) striking out the words "(in any one train)" in the line on page 12 thereof commencing with the word "Fireworks"; (b) striking out paragraphs (2), (3), (4), (4a), (4b), (5), (11), (12), (15), (16), (17) and (19) of Section 29 on pages 24 and 25 of the said Regulations applying to shippers, and substituting therefor the following paragraphs under the heading "Acceptable Fireworks":

29(2) SPECIAL FIREWORKS. Special fireworks are manufactured articles designed primarily for the purpose of producing visible or audible pyrotechnic effects by combustion or explosion.

Examples are toy torpedoes, railway torpedoes, some firecrackers and salutes, exhibition display pieces, aeroplane flares, illuminating projectiles not fused and without expelling charges, flash powders in inner units not exceeding 2 ounces each, flash sheets in interior packages, flash powder or spreader cartridges containing not over 72 grains of flash powder each, and flash cartridges, consisting of a paper cartridge shell, small-arms primer, and flash composition, not exceeding 180 grains all assembled in one piece. Fireworks must be in a finished state, exclusive of mere ornamentation, as supplied to the retail trade and must be so constructed and packed that loose pyrotechnic composition will not be present in packages in transportation.

(4) Special fireworks, except as otherwise authorized, must be securely packed in containers complying with the following specifications:

(a) Spec. 11B—Strong tight, sparkproof wooden barrels.

(b) Spec. 15A, 15B, 16A, or 19A—Wooden boxes. Gross weight not to exceed 200 pounds.

(15) The gross weight of a package containing toy torpedoes must not exceed 65 pounds.

(16) Except as otherwise specified herein the gross weight of one outside package containing fireworks must not exceed 200 pounds and not more than 600 pounds of special fireworks can be carried on any one car.

(17) Each outside package of Special Fireworks must be plainly marked in letters not less than seven-sixteenths inch in height "SPECIAL FIREWORKS—HANDLE CAREFULLY—KEEP FIRE AWAY."

(19) *Label.* Each outside package containing Special Fireworks when offered for transportation by carriers by rail express must have securely and conspicuously attached to it a square red label measuring 4 inches on each side and bearing in black letters the following:

RED LABEL FOR SPECIAL FIREWORKS

4 inches

SPECIAL FIREWORKS

HANDLE CAREFULLY

KEEP FIRE AWAY

DO NOT DROP NOR THROW

*This package must not be loaded or
stored near steam pipes or
other source of heat.*

This is to certify that the above articles are properly described by name and are packed and marked and are in proper condition for transportation, according to the regulations prescribed by the Board of Transport Commissioners for Canada.

.....
Shipper's Name
.....

4 inches

(20) **COMMON FIREWORKS.** Common fireworks are the following manufactured articles designed primarily for the purpose of producing visible or audible pyrotechnic effects by combustion or explosion. Common fireworks must be in the finished state exclusive of mere ornamentation, as supplied to the retail trade and must be so constructed and packed that loose pyrotechnic composition will not be present in packages in transportation:

- (a) Roman candles, total pyrotechnic composition not to exceed twenty grams each in weight.
- (b) Sky rockets with sticks, total pyrotechnic composition not to exceed twenty grams each in weight. The rocket sticks must be securely fastened to the casing.
- (c) Helicopter type rockets, total pyrotechnic composition not to exceed twenty grams each in weight.

- (d) Cylindrical fountains, total pyrotechnic composition not to exceed seventy-five grams each in weight. The inside tube diameter shall not exceed $\frac{3}{4}$ inch.
 - (c) Cone fountains, total pyrotechnic composition not to exceed fifty grams each in weight.
 - (f) Wheels, total pyrotechnic composition not to exceed sixty grams in weight, for each driver unit, but there may be any number of drivers on any one wheel. The inside bore of driver tubes shall not be over $\frac{1}{2}$ inch.
 - (g) Railway fusees, truck flares, hand ship distress signals and illuminating torches. Total pyrotechnic composition of illuminating torches not to exceed one hundred grams each in weight.
 - (h) Sparklers and dipped sticks, total pyrotechnic composition not to exceed one hundred grams each in weight. Pyrotechnic composition containing any chlorate or perchlorate shall not exceed five grams.
 - (i) Coloured Box and Cone Fire, total pyrotechnic composition not to exceed one hundred grams each in weight.
 - (j) Mines and Shells of which the mortar is an integral part except those designed to produce an audible effect, total pyrotechnic composition not to exceed forty grams each in weight.
 - (k) Firecrackers and salutes with casings, the external dimensions of which do not exceed one and one-half inches in length or one-quarter inch in diameter, and all articles designed to produce audible effect, total pyrotechnic composition not to exceed two grains each in weight.
- (21) Common fireworks, except as otherwise authorized, must be securely packed in containers complying with the following specifications:
- (a) Spec. 11B—Strong, tight, sparkproof wooden barrels.
 - (b) Spec. 15A, 15B, 16A or 19A. Wooden boxes. Gross weight not to exceed 100 pounds.
 - (c) Spec. 12B—Fibreboard boxes. Gross weight not to exceed 65 pounds.
- (22) Firecrackers, Chinese, in addition to containers specified in Section 29 (21) *a, b, c*, may also be transported in the package in which they are imported, provided these packages consist of wooden boxes, or fibreboard boxes, Spec. 12B, in good condition, completely covered with strong matting and do not weigh more than 100 pounds gross.
- (23) Fireworks, such as sparklers or fusees, with match tip or head, or similar igniting point or surface, must have each individual tip, head, or similar igniting point or surface entirely covered and securely protected against accidental contact or friction.
- 29 (24) Railway fusees, flares or highway signals must be packed in containers complying with the following specifications:
- (a) Spec. 15A, 15B, 16A, or 19A.—Wooden Boxes. Gross weight not to exceed 200 pounds.
 - (b) Spec. 12B—Fibreboard boxes, provided that ends of boxes are reinforced to prevent penetration of spikes through the outside container when the completed package, prepared for shipment, is subjected to two drops from a height of 4 feet on a solid surface and so as to strike diagonally with spikes in a downward position. Gross weight not to exceed 65 pounds is authorized in boxes made in accordance with paragraph 32 of Spec. 12B.

- (c) Spec. 20—Mailing tubes, provided that penetration of the spikes of fusees (flares or highway signals), through the outside container is prevented by one of the methods specified for fibreboard boxes, Spec. 12B, in Section 29 (24) (b). Gross weight not to exceed 5 pounds.
 - (d) Fusees, flares, pyrotechnic, or highway signals without spikes, or torches, pyrotechnic, when offered for shipment may be packed in containers prescribed in this paragraph, omitting the protection required for these articles when equipped with spikes.
 - (e) Fusees, flares, or highway signals may be packed with non-explosive or non-flammable articles provided the outside packages are marked as prescribed herein.
- (25) Except as otherwise specified herein the gross weight of one outside package containing common fireworks must not exceed 100 pounds.
- (26) Each outside package must be plainly marked in letters not less than even-sixteenths inch in height "COMMON FIREWORKS—HANDLE CAREFULLY—KEEP FIRE AWAY."

HUGH WARDROPE,
Assistant Chief Commissioner.

OTTAWA, March 18, 1950.

CIRCULAR No. 265 (R)

Files 11654.14-21351.1—Foot Boards on locomotives used in joint yard and transfer service

The above-noted matter now being covered by the Board's General Order No. 737 of January 31st, 1950, Circular No. 152 of April 24th, 1917, is hereby rescinded.

By Order of the Board,

P. F. BAILLARGEON,
Secretary.

v. Do

CAI
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-A 55

DOMINION OF CANADA

FORTY-SEVENTH REPORT

of

**THE BOARD OF TRANSPORT
COMMISSIONERS FOR CANADA**

**FOR THE YEAR ENDED
DECEMBER 31
1951**



EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1952

DOMINION OF CANADA

FORTY-SEVENTH REPORT
of
THE BOARD OF TRANSPORT
COMMISSIONERS FOR CANADA

FOR THE YEAR ENDED
DECEMBER 31
1951



THE BOARD OF TRANSPORT COMMISSIONERS
FOR CANADA, 1951

Hon. Justice JOHN D. KEARNEY, *Chief Commissioner.*

W. H. M. WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

P. F. BAILLARGEON,
Secretary.

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REPORT OF THE BOARD OF TRANSPORT COMMISSIONERS FOR CANADA

To the Governor in Council:

Pursuant to the provision of Section 31 of the Railway Act, 1919, the Board of Transport Commissioners for Canada has the honour to submit its Forty-seventh Report for the year ended December 31, 1951.

AMENDMENT TO THE RAILWAY ACT AND TO THE MARITIME FREIGHT RATES ACT

During the year, The Railway Act was amended by 15-16 George VI Chapter 22. The amendments arose mainly out of the Report of the Royal Commission on Transportation and their principal effects were: *(a)* to provide for an appeal from the Board to the Supreme Court of Canada upon a question of law upon leave of a judge of that court; *(b)* to provide for the elimination of the references in the Act to standard and special freight tariffs, for a new division of freight tariffs and for revision of related sections; *(c)* to make a declaration of a national freight rates policy as to equalization of freight rates and to empower the Board to provide for equalization of freight rates in Canada subject to certain exceptions; *(d)* to provide that when competitive transcontinental tariffs of freight rates are published by the railways the tariffs shall contain a provision that the rates to or from intermediate territory shall not exceed the transcontinental competitive rates by more than one-third; *(e)* to empower the Board to require a company issuing a competitive rate to furnish certain information; and *(f)* to direct the Board to provide for a uniform classification and system of accounts and reports for the Canadian National Railway Company and the Canadian Pacific Railway Company and to empower the Board to provide a simplified classification of such accounts and reports for other railways.

The Maritime Freight Rates Act was also amended in 1951. The amendment repealed section 6 of that Act and provided that the benefit of the Act shall apply to west-bound traffic moving rail-and-lake and also rail-lake-and-rail from points on Eastern lines.

PUBLIC SITTINGS OF THE BOARD

During the year covered by the period from January 1, 1951, to December 31, 1951, the Board held 50 public sittings at which 62 cases were heard. The number of public sittings held in the various provinces was as follows:

Province	Number
Ontario.....	35
Quebec.....	5
Manitoba.....	1
Saskatchewan.....	1
Alberta.....	1
British Columbia.....	3
Nova Scotia.....	—
New Brunswick.....	2
Prince Edward Island.....	2
Newfoundland.....	—
Total.....	50

The applications include a great variety of matters falling within the jurisdiction of the Board under the Railway Act and the Transport Act, varying from a complaint of a private individual to weightier matters of general public interest affecting the community as a whole.

FORMAL AND INFORMAL MATTERS

The number of informal matters dealt with by the Board, as distinguished from matters heard at public sittings, constitute a considerable percentage of the total applications and complaints dealt with by it; that is to say, of a total of 2,690 applications and complaints received and dealt with by the Board 98·14 per cent were disposed of without the necessity of such formal hearing. These informal complaints, dealt with and settled without the necessity of hearing, entail in many instances a considerable amount of inquiry and consideration on the part of the Board and the Board's officials, and cover a wide range of subjects, as, for example, a complaint of a more or less trivial nature to a matter of general public interest affecting the community as a whole, or involving the application of some general principle regarding the transport rates.

APPEALS FROM JUDGMENTS OF THE BOARD

No appeals were taken either to the Governor in Council or to the Supreme Court of Canada from any judgments of the Board during the year.

DECISIONS AND RULINGS OF THE BOARD

Brief notes of a number of the more important judgments delivered in 1951 are given below.

NEWFOUNDLAND *v.* C.N.R.

40 J.O.R. & R. 351

The Province of Newfoundland applied for an order directing the Canadian National Railway Company to cancel the tariffs in effect relative to the movement of traffic within, into and out of Newfoundland, and to substitute therefor tariffs and tolls based on the rate structure in effect in relation to the movement of traffic within, into and out of the other Maritime Provinces, complaining that the level of rates established by the Company was not in accordance with the intent and meaning of the Terms of Union between Canada and Newfoundland.

Held, that under the Terms of Union Newfoundland is to be included rate-wise in the Maritime Region on a general level of rates similar to the other Maritime Provinces notwithstanding certain dissimilar, disadvantageous circumstances and conditions pertaining to Newfoundland, and to that extent the Terms of Union, as a Special Act, takes precedence over any provisions of the Railway Act to the contrary, particularly Section 314, thereof.

Re LENGTH OF RAILWAY SECTIONS

41 J.O.R. & R. 79

67 C.R.T.C. 122

Upon an application of the Railway Transportation Brotherhoods for an order prescribing regulations as to the length of sections and the number of maintenance employees required for each section, the Board dealt with the flagging, motor car and maintenance of way rules in respect of which the parties were in disagreement, and held that under existing conditions it should not define the minimum number of men to be employed on sections or the length of sections. The application was dismissed on the understanding that if, after the 40-hour week has become effective, the Applicants consider that there are insufficient men employed on any particular section the Board will consider any further application relating thereto.

Re TOLLS OF LICENSED WATER CARRIERS WITHIN THE MACKENZIE RIVER
WATERSHED

41 J.O.R. & R. 33

The Board, following an investigation upon its own motion of the rates structure of the licensed carriers of passengers and goods by water within the Mackenzie River watershed, made findings upon the reasonableness or otherwise of the rates charged by the licensees; fixed reasonable Standard Mileage Maximum Freight Rates; required revision of the licensees' Rules of Carriage in accordance with the judgment; required the licensees to establish and maintain suitable depreciation records; required the licensees to file uniform classifications, submit standard freight tariffs for approval, and substitute "Special" tariffs for the existing standard freight tariffs.

Re APPLICATION OF THE RAILWAY ASSOCIATION OF CANADA FOR AUTHORITY
TO MAKE A GENERAL INCREASE IN FREIGHT RATES

41 J.O.R. & R. 161

Following a hearing of Part I of the application to make a general increase in freight rates and a hearing of Part II insofar as necessary to permit an interim judgment to be given, the Board authorized a general increase of 12 per cent in rates in Standard and Special Freight Tariffs, and other miscellaneous increases, as a measure of interim relief pending subsequent hearing and determination of Part II. The judgment stated that certain matters, including exceptions from horizontal increases, the requirements of the C.P.R. as to surplus, withdrawals from the C.P.R.'s Deferred Maintenance Reserve, competitive rates and cost of the 40-hour week, would be further considered at the subsequent hearing.

MARITIMES TRANSPORTATION COMMISSION *v.* C.N.R.

41 J.O.R. & R. 219

The Maritimes Transportation Commission applied for the establishment of one rate zone on Prince Edward Island instead of the two zones in existence there. By a majority judgment the Board directed the Canadian National Railway Company to establish one rate zone comprising the whole of Prince Edward Island in respect of domestic, class and commodity rates, other than mileage or distance rates, applicable

- (a) eastbound between stations in Canada outside Select Territory, and
- (b) westbound between stations in Prince Edward Island and stations in Canada outside Select Territory,

and to make applicable to the whole of Prince Edward Island the level of such rates then being charged to and from stations in the present Inner Zone of Prince Edward Island. (The Company has applied for a re-hearing of the application; the Order that was made pursuant to the judgment has been suspended pending the hearing of the Company's application).

Re TRANS-NORTHERN PIPE LINE COMPANY

41 J.O.R. & R. 229

The Board granted leave to the Trans-Northern Pipe Line Company to construct a pipe line for the transportation of refined oil products from a point in the vicinity of Montreal to Toronto and thence to Hamilton with branch lines to Ottawa, Prescott and Clarkson. Upon an objection made by Counsel for the Attorney-General for the Province of Quebec that the Pipe Lines Act is unconstitutional and ultra vires of the Parliament of Canada the Board held that it is not the function of the Board to pass upon the constitutionality or validity of legislation whether Dominion or Provincial.

Re TRANS MOUNTAIN OIL PIPE LINE COMPANY

51 J.O.R. & R.

The Board granted leave to the Trans Mountain Oil Pipe Line Company to construct a pipe line for the transportation of oil from the vicinity of Edmonton to the vicinity of Vancouver through the Yellowhead Pass, the line to be completed on or before October 31st, 1954. During the hearing the Alberta Natural Gas Company, the Independent Pipe Line Company and Westcoast Transmission Company Limited asked and received permission to withdraw their applications for leave to construct pipe lines for the transportation of oil from the vicinity of Edmonton to the vicinity of Vancouver.

CITY OF WINDSOR *v.* DETROIT & CANADA TUNNEL CORPORATION

41 J.O.R. & R. 257

The Detroit & Canada Tunnel Corporation (The Detroit and Windsor Subway Company) owns and operates the tunnel between Windsor, Ontario and Detroit, Michigan. The Company filed its Tariff C.T.C. No. 21 which purported to cancel its Tariff C.T.C. No. 20 and increase certain tolls in that Tariff. A number of protests were received by the Board, and an application for suspension of C.T.C. No. 21 was filed by the City of Windsor, whereupon the Board postponed the effective date of C.T.C. No. 21 pending hearing of the application for suspension.

Held, that the Company is entitled, under prevailing conditions to earn more revenue than Tariff C.T.C. No. 20 permits it to earn, but that the proposed increases in the tolls charged commuters are unreasonable. C.T.C. No. 21 was disallowed and the Company was authorized to issue a tariff in lieu thereof, making certain increases in tolls as set forth in the judgment.

Re APPLICATION OF THE BELL TELEPHONE COMPANY OF CANADA FOR INCREASED RATES

41 J.O.R. & R. 289

The Company applied for an order approving certain proposed revisions of its tariffs respecting exchange service and equipment. On the hearing of the Company's application for an interim increase the Company's evidence was directed mainly to increased expenses since the Board's judgment of November 15, 1950, in wages, pension costs, income tax (5%) and Defence Surtax (20%).

Held, that an interim increase is justified, but that the full burden of the increase cannot reasonably be allowed to fall almost entirely upon exchange services, as proposed by the Company, but should be shared by long distance and other services as well; permission granted to apply a general increase averaging about 5 per cent in order that all services may share the burden. The Company's proposal to re-group 69 exchanges was rejected, re-grouping to be proceeded with in accordance with the machinery provided in the Board's Circular No. 267 whereby reports of telephone growth or decline may be made to the Board twice yearly with notice to affected parties.

PROVINCE OF PRINCE EDWARD ISLAND *v.* C.N.R.

41 J.O.R. & R. 294

Following the issuance of Board's Order No. 76254, dated March 10, 1951, which forbade the operation of engines, cars or trains over the Hillsborough Bridge in Prince Edward Island, the Province applied for an order directing the Canadian National Railway Company to rebuild the bridge and for an order directing the Company to maintain train service between Charlottetown and

Murray Harbour. The Company applied for leave to abandon operation of the bridge and to discontinue operation of all passenger and mixed train service between Charlottetown and Lake Verde.

Held, in a majority judgment, that the main question is whether or not public necessity and convenience is such as to warrant the reconstruction of the bridge for railway purposes and the continued operation of passenger and/or mixed train service between Charlottetown or Southport and Lake Verde regardless of the additional costs involved, the financial loss to the railway, or the savings which could be otherwise effected; that the reconstruction of the bridge as a railway facility is not absolutely necessary; that if a decision were to be based solely on the revenues received and the cost of operation, the financial loss to the railway would undoubtedly tip the scales against public necessity and convenience, but due to the impassability of the highways during portions of the year it is necessary for the railway to operate a passenger or mixed train service between Southport and Lake Verde when the highways are impassable in order to meet public necessity and convenience. Order issued dismissing the applications of the Province and granting leave to the Company to discontinue operation of all passenger and mixed train service between Southport and Lake Verde from April 30th to December 1st in each year, subject to further order of the Board.

Judgments, Orders, Rules and Regulations of the Board appear in the semi-monthly bulletin of the Board. The Board's Judgments are also reported in the Canadian Railway and Transportation Cases.

ORDERS, GENERAL ORDERS AND CIRCULARS

The total number of orders issued for the year ended December 31, 1951, was 2,224. The number of general circulars issued by the Board directed to all the transport companies subject to its jurisdiction was two. The general orders as distinguished from other orders of the Board are those affecting all transport companies subject to its jurisdiction, and are 26 in number for the year.

The general orders and circulars issued by the Board during the year ended December 31, 1951, will be found compiled under Appendix "H" of this report.

APPLICATIONS TO THE BOARD

The total number of applications, including informal complaints, made to the Board for the year ended December 31, 1951, was 2,690.

ROUTINE WORK OF THE BOARD

RECORD DEPARTMENT

Below is given a table setting forth the number of applications, filings and letters received during the year ended December 31, 1951, together with the number of orders issued:—

Number of applications made.....	2,690
Number of filings received during the year.....	24,664
Number of outgoing letters during the year.....	30,071
Number of orders issued during the year.....	2,224

CHANGES IN THE PERSONNEL OF THE BOARD

During the year 1951, there were the following changes in the personnel of the Board:—

Mr. William J. Patterson ceased to be a Commissioner when he assumed the office of Lieutenant Governor of Saskatchewan, on July 3rd.

The Honourable John D. Kearney, puisne Judge of the Exchequer Court, was appointed Chief Commissioner of the Board on October 13, the appointment being effective November 1. He replaced the Honourable Mr. M. B. Archibald, a puisne Judge of the Exchequer Court, whose resignation had become effective on October 31.

During the same year we recorded the death, on March 28th, of Mr. V. H. Carruthers, District Engineer, who had previously served the Board for a period of five years, and the resignation of Mr. A. des Trois Maisons, District Engineer, after only one year of service with the Board.

TECHNICAL SERVICES

Besides its Administrative and Legal branches, the Board is composed of four main technical departments, namely: the Traffic, the Engineering and the Operating departments and the Bureau of Transportation Economics. Summaries of the activities of these departments, during 1951, are to be found in the Appendices to this report.

APPENDIX "A"

LIST OF MEMBERS OF THE BOARD WHO HAVE SERVED OR ARE SERVING ON THE BOARD.

Member's Name	Office	Appointment	Termination
Hon. A. G. Blair, K.C.....	Chief.....	1st Feb. 1904...	31st. Oct. 1904 (resigned)
Hon. M. E. Bernier.....	Deputy.....	1st Feb. 1904...	31st Jan. 1914 (served term)
James Mills.....	Commr.....	1st Feb. 1904...	31st Jan. 1914 (served term)
Hon. A. C. Killam, K.C.....	Chief.....	6th Feb. 1905...	1st March, 1908 (died)
Hon. J. P. Mabee, K.C.....	Chief.....	28th March, 1908	6th May, 1912 (died)
D'Arcy Scott.....	Ass't.....	17th Sept. 1908..	16th Sept. 1918 (served term)
S. J. McLean.....	Commr.....	17th Sept. 1908..	16th Sept. 1919 (reappointed)
Hon. Thos. Greenway.....	Commr.....	17th Sept. 1908...	30th Oct. 1908 (died)
A. S. Goodeve.....	Commr.....	4th April 1912...	22nd Nov. 1920 (died)
Henry L. Drayton, K.C.....	Chief.....	1st July 1912....	1st Aug. 1919 (resigned)
Hon. W. B. Nantel, K.C.....	Deputy.....	20th Oct. 1914...	19th Oct. 1924 (served term)
A. C. Boyce, K.C.....	Commr.....	4th Oct. 1917....	3rd Oct. 1927 (served term)
Dr. J. G. Rutherford, C.M.G.....	Commr.....	17th Sept. 1918...	24th July 1923 (died)
Hon. F. B. Carvell, K.C.....	Chief.....	2nd Aug. 1919....	9th Aug. 1924 (died)
S. J. McLean, LL.B.....	Commr.....	16th Sept. 1918...	15th Sept. 1928 (reappointed)
	Ass't.....	6th Aug. 1919....	
Calvin Lawrence.....	Commr.....	4th Nov. 1921...	4th May 1931 (died)
Hon. Frank Oliver.....	Commr.....	21st Sept. 1923...	20th Sept. 1928 (reached age of 75)
Hon. H. A. McKeown, K.C.....	Chief.....	16th Sept. 1924...	28th Feb. 1931 (resigned)
Thomas Vien, K.C.....	Deputy.....	5th Sept. 1925...	31st Jan. 1931 (resigned)
Hon. T. C. Norris.....	Commr.....	30th March 1928..	29th March 1938 (served term)
S. J. McLean, LL.B.....	Ass't.....	17th Sept. 1928...	16th Sept. 1938 (served term)
John A. Stoneman.....	Commr.....	12th March 1929..	11th March 1939 (reappointed)
Hon. C. P. Fullerton, K.C.....	Chief.....	13th Aug. 1931...	31st Dec. 1933 (resigned)
F. A. Labelle.....	Deputy.....	16th Dec. 1931...	15th July 1933 (died)
G. A. Stone.....	Commr.....	16th Dec. 1931...	15th Dec. 1941 (reappointed)
F. Nap. Garceau, K.C.....	Deputy.....	16th Sept. 1933...	10th April 1943 (reached age of 75)
Hon. Hugh Guthrie, K.C.....	Chief.....	12th Aug. 1935...	3rd Nov. 1939 (died)
Hugh Wardrope.....	Ass't.....	8th Nov. 1938...	8th Nov. 1948 (reappointed)
John A. Stoneman.....	Commr.....	11th March 1939..	10th Mar. 1949 (served term)
F. M. MacPherson.....	Commr.....	21st Sept. 1939...	20th Sept. 1949 (reappointed)
J. A. Cross, Col., D.S.O., K.C.....	Chief.....	1st April 1940...	30th June, 1948 (resigned)
G. A. Stone.....	Commr.....	15th Dec. 1941...	1st July 1947 (reached the age of 75) (reappointed—1st July, 1947 to 30th June 1948)
Armand Sylvestre, K.C., LL.B.....	Deputy.....	18th April 1945...	17th April 1955
Hon. Mr. Justice M. B. Archibald.....	Chief.....	1st July 1948....	31st Oct. 1951 (resigned)
H. B. Chase, C.B.E.....	Commr.....	28th July 1948...	27th July 1958
Hugh Wardrope.....	Ass't.....	8th Nov. 1948...	7th Nov. 1958
W. J. Patterson.....	Commr.....	28th April 1949...	2nd July 1951 (resigned)
F. M. MacPherson.....	Commr.....	21st Sept. 1949...	20 Sept. 1959
Hon. Mr. Justice John D. Kearney.....	Chief.....	1st Nov. 1951...	31st Oct. 1961

APPENDIX "B"

(1) Since the establishment of the Board, its jurisdiction has been extended to the following matters:—

- (a) Bridges—3 Edw. VII, C.58, S.8 and R.S. Can. 1927, C.20.
- (b) Express tolls—6 Edw. VII. C. 42, S.27, 1906.
- (c) Telegraph companies—C.61, 1908. S.4.
- (d) Telephone companies—6 Edw. VIII. C.42. S.30.
- (e) Radio—1938 Can. Statutes. C.50, S.6.
- (f) International bridges and tunnels—1929, C.54.
- (g) Maritime Freight Rates Act—1927, C.44.
- (h) Abandonment of Operation of railway lines—1933, C.47 (S.165A).
- (i) Canadian National-Canadian Pacific Act, 1933, C.33.
- (j) The Transport Act, 1938, C.53—(Licensing and rate regulation of ships; agreed charges).
- (k) Agreements—(S.35 of present Act)—8-9 Edw. VII, C.32, S1.
- (l) Purchase of electrical energy from a person who has acquired water power under lease from the Crown (S. 374 of present Act 1909, C.31, S.1.
- (m) Railway Grade Crossing Fund (S.262 of present Act)—1909. C.32, S.7.
- (n) The Pipe Lines Act, 13 Geo. 6, Chap. 20, 1949.

(2) Since 1923 the jurisdiction of the Board has been extended to the following railways:—

- Hudson Bay Railway.
- Intercolonial.
- Prince Edward Island.
- National Trans-Continental.
- Lake Superior Branch (Leased from G.T.P.R.).
- Quebec North Shore and Labrador Railway.

(3) In addition to the above there are a number of Acts which gave the Board jurisdiction over particular companies in certain specified matters.

APPENDIX "C"

REPORT OF THE TRAFFIC DEPARTMENT FOR THE YEAR
ENDED DECEMBER 31, 1951

Submitted herewith is the report of the Traffic Department of the Board for the calendar year 1951, setting out the number of tariff schedules and ancillary tariff documents received for filing; also a brief summary of other work performed:

TARIFFS AND SUPPLEMENTS FILED

<i>Rail—</i>	
Freight.....	28,406
Agreed Charges.....	10
Passenger.....	1,957
Sleeping and Parlour Car.....	97
<i>Water—</i>	
Freight.....	180
Passenger.....	19
Express.....	2,681
Telephone.....	2,009
Telegraph.....	18
Bridges and tunnels.....	7
Total tariff schedules.....	35,384

OTHER TARIFF DOCUMENTS FILED

Concurrences.....	283
Revocation Notices.....	33
Powers of Attorney.....	877
Revocation Notices.....	114
By-Laws.....	2
Total tariff documents.....	1,309
Total.....	36,693

MARITIME FREIGHT RATES ACT

For the period July 1, 1950 to June 30, 1951 inclusive, the detail of the work performed was:

Rates checked.....	1,444,100
Extensions checked.....	722,050
Additions checked.....	12,943
Corrections issued.....	6,573
Orders issued.....	102
Reimbursement claimed.....	\$ 1,459,049.83
Reimbursement allowed.....	1,422,295.50
Net deduction.....	16,754.33

CORRESPONDENCE

A total of 3,787 communications emanated from this Department during the year relating to its administrative functions in the handling of complaints; interpretation of tariffs or classification and the filing of same; furnishing rate information; also, concerning powers of attorney, concurrences, free or reduced transportation; administration of the Maritime Freight Rates Act and the granting of water licences under The Transport Act, 1938.

TRANSPORT COMMISSIONERS FOR CANADA

ORDERS ISSUED

During the year, in addition to Orders issued pursuant to the Maritime Freight Rates Act as mentioned above, the following Orders were issued:

Traffic	Water Licences	Agreed Charges	Telephone Telegraph	Bridges Tunnels	Total
21	22	6	135	4	188

AGREED CHARGES

During the year Agreed Charge matters were:

New Agreements	Amendments to former Agreements	Fixed Charges	In effect December 31, 1951 Agreements	Shippers
1	2	4	22	71

WATER TRANSPORTATION LICENCES

Licences, under Part 2 of The Transport Act, 1938, were granted as follows:

Licences	Ships	Area
12.....	74	Great Lakes
12.....	146	Mackenzie River
1.....	7	Yukon River

MISCELLANEOUS

During the year this Department dealt with 320 applications including formal complaints and among other matters continued to assist in the preparation of basic data for purposes of the Board's "Waybill Analysis".

A. S. KIRK,
Director.

APPENDIX "D"

February 26th, 1952.

THE SECRETARY,
BOARD OF TRANSPORT COMMISSIONERS FOR CANADA,
OTTAWA, CANADA.

DEAR SIR,

I submit herewith my Annual Report and information regarding the work of the Engineering Branch of the Board during the past year, and attach herewith details and summarized statement of works of the Engineering Department during the year 1951.

Yours very truly,
KELLS HALL,
Director of Engineering.

RAILWAY GRADE CROSSING FUND, AND SPECIAL VOTES

In accordance with the provisions of sub-section (5) of Section 262 of the Railway Act, 1909, provision was made that the sum of \$200,000 each year, for ten consecutive years from the first day of April 1909, be appropriated and set apart from the consolidated revenue fund for the purpose of aiding actual construction work for the protection, safety, and convenience of the public in respect of highway crossings of railways at rail level, in existence on the first day of April, 1909, the said sums to be placed to the credit of a special account to be known as "The Railway Grade Crossing Fund", to be applied by the Board, subject to certain limitations set out in the Act, and amending Acts, solely towards the cost (not including that of maintenance and operation), of actual construction work for the purpose specified. In 1919, the same sum was voted for another ten years and again 1929.

In 1947 the sum of \$200,000 a year was voted for a period of ten years, and increased to \$500,000 a year for 1948, 1949 and 1950. This sum was further increased to one million dollars for six consecutive years from the 1st day of April, 1951.

An amount of \$500,000 was transferred to the Railway Grade Crossing Fund from the Unemployment Relief Fund, 1930, and \$500,000 from the Unemployment and Farm Relief Fund, 1931-1932; \$500,000 by special vote of Parliament in 1934. In 1938, \$300,000 was placed in the Railway Grade Crossing Fund in addition to the usual \$200,000 and \$500,000 was placed in the Railway Grade Crossing Fund by special vote in 1939; \$1,000,000 by the Public Works Construction Act, 1935; \$1,000,000 by Vote 420, Special Supplementary Estimates 1936-37; Vote 357, Special Supplementary Estimates, 1937-38, \$1,064,000; Vote 630, Supplementary Estimates 1938-39, provided \$1,000,000; and Vote 585, Supplementary Estimates 1939-40, provided \$1,000,000, making the total provided to the end of the year 1950 of \$16,064,000. Out of these funds the sum of \$13,186,751.06 has already been paid.

The funds voted to the Railway Grade Crossing Fund are accumulative, whereas the money provided by the Special Votes had to be committed to projects by the end of the current fiscal year, when the vote elapsed, and funds not already committed were no longer available.

Expenditures from the Railway Grade Crossing Fund were low during the War years, due to labor and material being directed to War purposes, and recommendations were only made for protection at highway crossings when absolutely necessary at the time.

In 1928, the Railway Act was amended by Chapter 43, 18-19 George V, and provision was made that in the case of any one crossing the total amount of money to be applied by the Board out of the Railway Grade Crossing Fund, in providing protection, safety and convenience for the public, shall not exceed forty percent of the cost of the actual construction work, and in no case shall the contribution exceed \$100,000. This was amended by Chapter 20, 14, George VI, dated June, 1950, so that the total amount to be applied for any one crossing was increased to \$150,000. Under the terms of the Public Works Construction Act, 1935, Vote 420, of the Special Supplementary Estimates 1936-1937; Vote 357 of the Special Supplementary Estimates 1937-1938; Vote 630 Supplementary Estimates 1938-39; and Vote 585 Supplementary Estimates, 1939-40; grants could be made up to 100 per cent of the cost of construction out of the funds provided under those Acts.

It will be noted that the Board is restricted to a contribution from the Railway Grade Crossing Fund of 40 per cent of the cost of construction of any project, and is able to pay nothing to the cost of the maintenance. The remaining sixty percent of the cost of construction and the entire cost of maintenance must be divided between the other interested parties, that is, generally the Railway and the Municipal authority. The maintenance costs of automatic protection, if capitalized in most cases, is equal to or greater than the original cost of construction.

Due to a shortage of materials, especially steel, many desirable projects, especially grade separations, have not been proceeded with during the past year. Some of these proposals have been inspected and no doubt will be proceeded with when materials are in more adequate supply.

Grade separations were completed during the year at the following points, and contributions were made towards the cost of construction out of the Railway Grade Crossing Fund;—

Grade Separations and Highway Diversions	Contributions from Railway Grade Crossing Fund
Highway diversion, closing 2 crossings, C.P.R. Transprovincial (Southern) Highway, Province of British Columbia, open crossing Mile 91-9, Boundary Subdn., and closing crossings Mileages 91-53 and 92-19, Boundary Subdivision.....	\$ 57,500 00
Overhead bridge, C.P.R. at Pacific Ave., Fort William, Ont.....	94,400 00
Highway diversion, closing 1 crossing, C.N.R. Provincial Highway from Station 328/00 to 470/50 Mile 44-78, Yale Sd. B.C.....	88,516 80
Subway, C.N.R., Dupont St., Toronto, Ont.....	150,000 00
Subway, C.N.R., Jones Ave., Toronto, Ont.....	150,000 00
Overhead bridge, C.N.R., Mill St., Saint John, N.B.....	150,000 00
Overhead bridge, C.N.R. Park Road between the City of Oshawa and Township of east Whitby, Mile 301-14, Oshawa Subdn. Ontario...	81,200 00

The following statements show the distribution of funds provided for the protection of highways crossing railways from 1909, when the first grant was made, to December 31, 1950.

STATEMENT SHOWING TOTAL AMOUNT PAID FOR WORK DONE IN THE DIFFERENT PROVINCES OUT OF THE RAILWAY GRADE CROSSING FUND AND SPECIAL VOTES—PERCENTAGE OF TOTAL EXPENDITURE IN EACH PROVINCE, AND PERCENTAGE OF POPULATION OF CANADA IN EACH PROVINCE, 1909 TO DECEMBER 31, 1951.

Province	Total expenditure from the different Votes	Percentage of total amount of expendi- ture	Population of Province	Percentage of population of Canada
	\$ cts.			
British Columbia.....	957,110 06	7.25	1,138,000	8.23
Alberta.....	409,593 73	3.11	895,000	6.48
Saskatchewan.....	673,544 80	5.11	874,000	6.32
Manitoba.....	394,708 29	2.99	795,000	5.75
Ontario.....	6,595,198 35	50.01	4,512,000	32.65
Quebec.....	2,888,805 60	21.90	3,976,000	28.77
New Brunswick.....	482,057 82	3.66	522,000	3.78
Nova Scotia.....	762,971 79	5.79	658,000	4.76
Prince Edward Island.....	22,760 62	.18	96,000	.69
Newfoundland.....			355,000	2.57
Total.....	13,186,751 06	100.00	13,821,000	100.00

ENGINEERING DEPARTMENT
January 16th, 1952.

EXPENDITURES FOR PROTECTION AT HIGHWAY CROSSINGS

1909 to DECEMBER 31, 1951

Province	Grade Crossing Fund	Percentage of Total	Municipalities	Percentage of Total	Railway	Percentage of Total	Total
	\$ cts.		\$ cts.		\$ cts.		\$ cts.
British Columbia	957,110 06	39.44	920,859 57	37.95	548,509 68	22.61	2,426,479 31
Alberta	409,593 73	32.60	428,496 96	34.09	418,519 37	33.31	1,256,610 05
Saskatchewan	673,544 80	36.40	826,153 03	44.05	350,548 42	18.95	1,850,251 30
Manitoba	394,708 29	41.94	219,910 10	23.37	326,546 25	34.69	941,164 64
Ontario	6,595,198 35	21.49	10,009,588 84	32.61	14,090,979 07	45.90	30,695,766 26
Quebec	2,888,805 60	38.93	3,481,982 43	46.94	1,048,496 51	14.13	7,419,284 54
New Brunswick	482,057 82	39.39	573,439 27	36.15	530,762 79	33.46	1,586,250 88
Nova Scotia	762,971 79	45.53	620,748 24	37.04	292,034 11	17.43	1,675,804 14
Prince Edward Island	22,760 62	60.08	12,822 98	33.85	2,300 94	6.07	37,884 54
Newfoundland							
Totals	13,186,751 06	27.54	17,093,997 47	35.69	17,608,747 14	36.77	47,889,495 67

The above figures include payments from the Railway Grade Crossing Fund and all other Votes for highway crossing protection.

ENGINEERING DEPARTMENT,
January 16th, 1952.

PROTECTION AT HIGHWAY CROSSINGS BY WIG-WAGS AND BELLS, FLASHING LIGHT SIGNALS AND BELLS, AND ELECTRIC GATES

During the year there were 118 installations of automatic protection at railway crossings, in addition to some 20 cases of circuit improvement in connection with existing protective devices.

Applications for automatic protection at railway highway level crossings are made by Municipal and Provincial Highway Authorities, sometimes by the Railways. Other cases are brought to the Board's attention by the officers of the Board. All applications do not result in installation of the protection applied for, but in the majority of cases all applications entail an inspection by an Engineer of the Board and his report for the Board's decision.

In the case of all installations the Board's Engineers made inspections and conducted a thorough test to ascertain if the installation had been made in accordance with the approved practice and plans, and if the protection was working in a satisfactory manner. An audit of all costs of protection installed was made by an Engineer of the Board. This involved the checking of all items of labor, material, as well as the original invoices. Recommendation was then made in connection with payment from the Railway Grade Crossing Fund, or special fund.

There were many inspections made during the year in connection with applications for highway crossing protection which did not result in installation, since as a result of the inspection it was found that conditions did not warrant the protection applied for.

HIGHWAY CROSSINGS OPENED, CLOSED, AND HIGHWAY DIVERSIONS

There were one hundred and ninety nine new highway crossings opened during the year and thirty nine closed, together with seven highway diversions. The highway crossings opened involved cases where the railway companies wished to extend their tracks across the existing public ways, and where Municipal and Highway Authorities desired to cross existing tracks by new, or diverted, highways.

Plans and profiles of the proposed crossings were carefully examined by Engineers of the Board, in order to endeavor to eliminate any objectionable features, such as obstruction to view, grades of approach, etc., and to bring about the safest possible travel conditions. A great many of the cases applied for required an examination on the ground, and recommendations were made following the inspections. Inspections were made in connection with highway diversions to eliminate wherever possible existing railway crossings.

INTERLOCKING PLANTS, AND CHANGES TO PLANTS AND SIGNALS

Recommendations were made in connection with changes to forty five interlocking plants, and twenty one interlocking plants were inspected in connection with Operating Orders.

When applications are made by the railways for approval of plans, covering the installation of, and changes to, signals and interlocked switches at diamond crossings, bridges, or junctions, a thorough check of track and signal plant is made to ensure that the plant is designed to provide full protection for all train

movements through the interlocking with signals and switches so arranged and interlocked mechanically, electrically, or both, to prevent trains from receiving conflicting indications.

Before the plants were placed in service, the Board's Engineer made a check in the field in all cases to ensure that circuits were installed in accordance with approved plan, and that the signals and switches functioned as intended. Recommendation was made to the Board in all cases in connection with the necessary Operating Order before the plants were put in operation.

During the year approval was given to the installation of a traffic control system of signals on the Canadian National Railways between Hornepayne and Foleyet, Ontario, a distance of approximately one hundred and forty-five miles. Approval was also given to the installation of automatic signals on the Canadian National Railways and the Canadian Pacific Railway Company in various parts of Canada covering many miles of modernized signalling. All such signal installations were thoroughly checked by the Board's Signal Engineer to ensure that the signals were installed in accordance with approved plan, and that they were functioning as intended. Recommendation was made to the Board in all cases in connection with the necessary Operating Order before any such plants were put in operation.

BRIDGES

During the year there were forty-nine bridges and subways approved for construction and reconstruction. The use of heavier motive power has made it necessary to carry out various works capable of safely carrying the heavier rolling stock at speeds greatly in excess of those in existence some years ago. This involves strengthening and reconstruction of bridges and culverts. The plans in connection with these structures were all submitted and were examined by an Engineer of the Board, and recommendation was made to the Board in connection therewith. After the structures were completed, examinations were made in all cases by an Engineer of the Board to ascertain if the structures were built according to the approved plan and safe for the carriage of traffic.

In addition to the above, inspections were made of fifty-eight bridges for safety of operation and recommendations made for an Order of the Board authorizing the railway companies to operate over them.

OPERATION OF BRANCH LINES AND INDUSTRIAL SPURS

The Engineering Department examined applications and plans in connection with operation over industrial spurs, and recommendations were made for seventy-five approving Orders.

MAINTENANCE OF TRACK AND STRUCTURES

One of the important duties of the Engineering Department of the Board is the inspection of track conditions to ensure safety of travel over approximately fifty-seven thousand miles of railway trackage in Canada under the Board's jurisdiction. The Board's engineers throughout the year travelled over and inspected all the Main Lines of railway and a considerable mileage of branch lines, to ensure the safety of track for public travel. Particularly close and

intensive examination was made of any Subdivision where any accident took place to ensure that standard practice and standard precautions had been taken, and the trackage was being properly maintained.

TUNNELS, WATER, GAS, OIL AND SEWER PIPES, UNDERGROUND MINE WORKINGS

In addition to the inspections enumerated above, plans were examined in connection with applications for water, gas and sewer pipes passing under the railways. In a number of cases these involved an inspection in the field. Plans and specifications were also examined in connection with applications for mining tunnels, and were recommended for approval when in accordance with safe practice.

A number of applications were received in connection with underground workings closely approaching the railway right-of-way and examinations and recommendations were made to ensure every safety precaution for the Board's consideration in issuing Order.

COMPANY PIPE LINES FOR GAS AND OIL

The Pipe Lines Act places under the jurisdiction of the Board all company pipe lines which are international or interprovincial. One pipe line, the Montana pipe line, was completed this year from Southern Alberta to the International Boundary on its way to Butte, Montana. Numerous other pipe lines for both oil and gas have been before the Board during the year. These applications involve the examination of plans for approval, and inspection by the Board's Engineer during the construction of the pipe line, and inspection of the completed pipe line before the Board authorized its operation and use.

The Engineering Department wishes to express its appreciation of the co-operation extended to it at all times during the past year by officials and engineers of the Provincial Highways Departments, Municipalities and Railways.

CONTRIBUTIONS FROM RAILWAY GRADE CROSSING FUND

Protection	Location	Railway	Per cent	Contributions	
				\$	cts.
Two flashing light signals and one bell	Geddes Street, Belleville, Ontario, Mileage 221-20, Oshawa Sub-division	C.N.R.	40	772	29
Two flashing light signals and one bell in lieu of bell and wig wag	Cumberland Avenue, Hamilton, Ontario	T.H. & B.Ry.	40	181	00
Two flashing light signals and one bell in lieu of bell and wig wag	Dunsmore Road, Hamilton, Ontario	T.H. & B.Ry.	40	182	00
Four flashing light signals and two bells in lieu of three wig wag signals and two bells	Main Street and Cage Avenue, Hamilton, Ontario	T.H. & B.Ry.	40	181	00
Two flashing light signals and one bell	Mileage 95-2 Newmarket Subdivision, Ontario	C.N.R.	40	1,299	29
Two flashing light signals and one bell	Highway No. 3, Mileage 22-68, Tiber Subdivision, Alberta	C.P.R.	40	1,271	21
Two flashing light signals and one bell	Wilson Avenue in the Village of Downsview, Mileage 9-1, Newmarket Subdivision, Ontario	C.N.R.	40	2,744	38
Two flashing light signals and one bell	Merritt Avenue in the City of Chatham, Mileage 65-41, Windsor Subdivision, Ontario	C.P.R.	40	2,825	00
Two flashing light signals and one bell	Crossing in the Village of Avonmore, Mileage 68-3, Winchester Subdivision, Ontario	C.P.R.	40	2,082	26
Two flashing light signals and one bell	Highway No. 11 at Ste. Agathe, Mileage 44-36, Ste. Agathe Subdivision, Quebec	C.P.R.	40	2,360	00
Two flashing light signals and one bell	Bethany Street in the Town of Lachute, Quebec	C.P.R.	40	3,212	00
Two flashing light signals and one bell	Forest Hill Road in the City of Fredericton, Mileage 20-98, Fredericton Subdivision, New Brunswick	C.N.R. and C.P.R.	40	3,320	00
Improve sight lines	Crossing in the County of Oxford, Mileage 73-75, Galt Subdivision, Ontario	C.P.R.	40	94	68
Two flashing light signals and one bell	Montclair Blvd., City of Hull, Quebec, Mileage 0-39, Maniwaki Subdivision	C.P.R.	40	2,730	00
Two flashing light signals and one bell	Crossing at Highway No. 11, Mileage 26-08, Maniwaki Subdivision, Quebec	C.P.R.	40	1,549	76
Two flashing light signals and one bell	Crossing at Shaw Drive in Lot 13, Concession 2, South of Dundas Street, Township of Toronto, Mileage 12-01, Oakville Subdivision, Ontario	C.N.R.	40	2,637	14
Divert Highway across Canadian Pacific Railway	Municipality of Biggar No. 347, divert highway across Canadian Pacific Railway in the southeast quarter of Section 32, Township 35, Range 13, West of third Meridian, Saskatchewan	C.P.R.	40	450	00
Two flashing light signals and one bell	Crossing of Lincoln Street in the City of Welland, Mileage 14-26, Welland Subdivision, Ontario	C.N.R.	40	5,480	00
Two flashing light signals and one bell	Highway No. 21, in Township of Howard, one-half mile north of Ridgetown, Ontario	C. & O.Ry.	40	1,990	00
Two flashing light signals and one bell	Crossing of Highway No. 18A, approximately one-half mile west of Kingsville, Ontario	C. & O.Ry.	40	1,870	00

Two flashing light signals and one bell.....	Crossing of Highway No. 1 East of Portage La Prairie, Mileage 53-6, Gladstone Subdivision, Manitoba.....	C.N.R.....	40	3,680 00
Two flashing light signals and one bell.....	Crossing of Highway No. 1 East of Portage La Prairie, Mileage 51-7, Harte Subdivision, Manitoba.....	C.N.R.....	40	3,640 00
Two flashing light signals and one bell in lieu of bell and sign.....	Monaghan Road immediately south of Landsdowne Street, City of Peterborough, Ontario.....	C.N.R.....	40	1,520 00
Two flashing light signals and one bell.....	First public crossing west of the station at Carleton, Mileage 43-45, Cascapedia Subdivision, Quebec.....	C.N.R.....	40	1,277 57
Two flashing light signals and one bell.....	Lorne Park, Ontario.....	C.N.R.....	40	5,240 00
Two flashing light signals and one bell.....	Route No. 6 at Port Daniel West, Mileage 19-52, Chandler Subdivision, Quebec.....	C.N.R.....	40	1,463 12
Electric short arm gate, flashing light signals and one bell in lieu of manually operated gates.....	King Street, Village of Hagersville, Ontario.....	N.Y.C.....	40	3,377 00
Two flashing light signals and one bell with additional light units.....	Crossing at County Road No. 16, in the Village of Jasper, Ontario.....	C.P.R.....	40	3,250 00
Two flashing light signals and one bell.....	Crossing at Ottawa Street in the City of Hamilton, Mileage 3-37, Hagersville Subdivision, Ontario.....	C.N.R.....	40	1,640 00
Two flashing light signals and one bell.....	Crossing of Courtland Avenue and the Grande River Railway in the City of Kitchener, Mileage 11-9, Waterloo Subdivision, Ontario.....	C.P.R.....	40	2,440 00
Two flashing light signals and one bell in lieu of electric bell.....	Old Ancaster Road (Gerrie's Crossing) in the Township of Ancaster, Province of Ontario.....	T.H. & B.....	40	1,153 00
Improve sight lines.....	Third public crossing east of Port Robinson, Mileage 7-56, Welland Subdivision, Ontario.....	C.N.R.....	40	214 00
Two flashing light signals and one bell with one additional light.....	Dundas Street (Highway No. 2), Mileage 29-88, Thorndale Subdivision, Ontario.....	C.N.R.....	40	1,040 00
Two flashing light signals and one bell in lieu of bell and wig wag.....	Crossing at Marie de L'Incarnation Street, City of Quebec, Quebec.....	C.P.R.....	40	2,440 00
Two flashing light signals and one bell and one flashing signal and one bell.....	Crossing at 82nd Street in the City of Edmonton, Alberta.....	C.N.R.....	40	5,350 00
Four flashing light signals and bells.....	Intersection of Ontario Road and Dain Avenue, Township of Crowland, Ontario.....	N.Y.C.....	40	2,630 00
Two flashing light signals and one bell with additional light unit.....	Crossing of Highway No. 6, Mileage 32-37, Cascapedia Subdivision, Quebec.....	C.N.R.....	40	1,399 72
Two flashing light signals and one bell.....	Pasqua Street, City of Regina, Mileage 93-93, Indian Head subdivision, Saskatchewan.....	C.P.R.....	40	5,000 00
Two flashing light signals and one bell with special circuits.....	Crossing of highway at Parish of St. Joseph de la Riviere des Prairies, Mileage 26-69, L'Assomption Subdivision, Quebec.....	C.N.R.....	40	2,440 00
Short arm gates and flashing light signals and bell, in lieu of wig wags and bell.....	Tuscorora Street, Hagersville, Ontario.....	N.Y.C.....	40	5,622 00
Short arm gates and flashing light signals and bell, in lieu of mechanical gates and flashing lights.....	Main Street, Hagersville, Ontario.....	N.Y.C.....	40	7,733 00

CONTRIBUTIONS FROM RAILWAY GRADE CROSSING FUND—Continued

Protection	Location	Railway	Per cent	Contributions \$ cts.
Two flashing light signals and one bell, in lieu of two automatic bells and wig wags.....	Elphinstone Street, in the City of Regina, Mileage 83.5, Indian Head Subdivision, Saskatchewan.....	C.P.R.....	40	2,400 00
Two flashing light signals and one bell and special circuits.....	First highway crossing immediately south of station at Bath, Mileage 81.07, Shogomoc Subdivision, New Brunswick.....	C.P.R.....	40	4,560 00
Two flashing light signals and one bell.....	Highway No. 40, Dufferin Street, at Wallaceburg, Ontario, Mileage 42.5 No. 2 Subdivision.....	C. & O.Ry.....	40	1,995 00
Two flashing light signals and two bells with special circuits.....	118th Avenue and Kingsway Avenue, in the City of Edmonton, Alberta.....	C.N.R.....	40	4,615 00
Two flashing light signals and one bell.....	Boulevard Bernard, in the City of Montreal, Quebec.....	C.N.R.....	40	2,920 00
Two flashing light signals and one bell.....	Highway No. 1 at Foster Square, Town of Waterloo, Mileage 15.96, Drummondville Subdivision, Quebec.....	C.P.R.....	40	1,570 36
Two flashing light signals and one bell, in lieu of bell and wig wag.....	20th Street West, in the City of Saskatoon, Saskatchewan.....	C.P.R.....	40	2,880 00
Two flashing light signals and one bell, in lieu of bell and wig wag.....	First public crossing east of Carrier Station, Mileage 7.82, Diamond Subdivision, Quebec.....	C.N.R.....	40	2,440 00
Subway.....	Mileage 19.2, Rimouski Subdivision, in Town of Rimouski, Quebec (St. Germaine Street).....	C.N.R.....	40	84,960 00
Changes to flashing lights and bell.....	Barton Street, City of Hamilton, Ontario.....	C.N.R.....	40	851 00
Changes to flashing lights and bell.....	Crossing of Main Street and Cage Avenue, Hamilton, Ontario.....	T.H. & B.....	40	473 67
Two flashing light signals and one bell.....	Maple Grove crossing in the Township of Oakland, at Mileage 27.73 from Galt, Ontario.....	L. Erie & Northern.....	40	960 00
Two flashing light signals and bells and short arm gates, in lieu of gates.....	95th Street crossing, City of Edmonton, Alberta.....	C.N.R.....	40	6,580 00
Two flashing light signals and one bell.....	Crossing of Route 3, Township of Stanford, between Plessisville and Princeville, Mileage 45.15, Danville Subdivision, Quebec.....	C.N.R.....	40	1,900 00
Two automatic short arm gates, flashing light signals and one bell.....	Louth Street, City of St. Catharines, Ontario.....	C.N.R.....	40	8,800 00
Two flashing light signals and one bell.....	Crossing at Mileage 115.43, Bassano Subdivision, Alberta.....	C.P.R.....	40	3,109 00
Two flashing light signals and one bell.....	Crossing at Boulevard Edward VII near the Village of St. Philippe, Mileage 31.04, Adirondack Subdivision, Quebec.....	C.P.R.....	40	3,680 00
Two flashing light signals and one bell, in lieu of bell and danger sign.....	Crossing of their Buffalo and Goderich line and highway, first public crossing east of station at Sherkston, Ontario.....	C.N.R.....	40	1,600 00
Two automatic short arm gates, three flashing light signals, two bells, two sidewalk arms and six stop signs, in lieu of watchman.....	Wilson Avenue, City of St. Thomas, Ontario.....	C. & O.Ry.....	40	4,720 00

Two flashing light signals and one bell.....	Trans-Canada Highway near Thompson, Mileage 87-18, Thompson Subdivision, British Columbia.....	C.P.R.....	40	2,520 00
Two flashing light signals and one bell, in lieu of wig wag and bell.....	Kings Road, in the City of Sydney, Mileage 100-9, Sydney Subdivision, Nova Scotia.....	C.N.R.....	40	2,240 00
Two flashing light signals and one bell, in lieu of wig wag and bell.....	Queen Street, Township of Etobicoke, Mileage 1-21, Obico Cutoff, Ontario.....	C.P.R.....	40	2,360 00
Relocate two gates.....	Rectory Street, in the City of London, Ontario.....	C.N.R.....	40	560 00
Two semi-automatic flashing light signals and one bell.....	Water Avenue, in the City of Winnipeg, Mileage 0-13, Winnipeg Transfer Railway, Manitoba.....	C.N.R.....	40	2,380 00
Improving sight lines.....	First public crossing West of the Station at Pacific Junction, Mileage 12-25, Harcourt Subdivision, New Brunswick.....	C.N.R.....	40	200 00
Two flashing light signals and one bell.....	Crossing at Highway No. 71, in the Province of Ontario, Mileage 94-3, Fort Frances Subdivision.....	C.N.R.....	40	3,440 00
Two flashin light signals and one bell.....	Crossing at Highway No. 7, Ontario, Mileage 32-22, Fergus Subdivision.....	C.N.R.....	40	1,600 00
Two traffic lights in addition to existing protection.....	Crossing at Eastern Avenue immediately west of the Don River, Toronto, Ontario.....	T.T.R.....	40	119 80
Improve sight lines.....	Crossing in Lot No. 7, Concession 1, Township of Pellott, Mileage 7-72, Keewatin Subdivision, Ontario.....	C.P.R.....	40	229 89
Diversion.....	Elimination of crossing at Goose Pond, Mileage 50-20, Sydney Subdivision, Nova Scotia.....	C.N.R.....	40	24,400 00
Two flashing light signals and one bell.....	Crossing of Highway No. 8 east of Papineauville, Mileage 77-81, Lachute Subdivision, Quebec.....	C.P.R.....	40	2,040 00
Two flashing light signals and one bell.....	First public crossing north of the Station at West Brome, Mileage 11-8, Newport Subdivision, Quebec.....	C.P.R.....	40	3,360 00
Two flashing light signals, and one bell.....	Highway No. 39, West of Foster Station, Quebec.....	C.P.R.....	40	3,630 00
Changes in operating Circuits.....	Crossing at Highbury Avenue, London, Ontario, Mileage 75-63, Dundas Subdivision.....	C.N.R.....	40	780 00
Two flashing light signals and one bell, in lieu of wig wag.....	First Crossing west of St. Ann's Station, Mileage 14-49, Ontario.....	T.H. & B.....	40	330 00
Two flashing light signals and one bell, in lieu of wig wag.....	Crossing of highway 0-63 miles west of St. Ann's Station, Ontario.....	T.H. & B.....	40	330 00
Two flashing light signals and one bell, in lieu of wig wag.....	Crossing of the highway at Edson, Alberta, Mileage 128-68, Wabamun Subdivision.....	C.N.R.....	40	1,585 00
Two flashing light signals and one bell.....	Crossing at Logan Avenue in the City of Winnipeg, Manitoba, Mileage 0-33, La Riviere Subdivision.....	C.P.R.....	40	3,640 00
Two flashing light signals and one bell.....	Crossing at Highway No. 20 near Allanburg, Ontario, Mileage 2-70, Thorold Subdivision.....	C.N.R.....	40	1,360 00
Two flashing light signals and one bell.....	Crossing at Highway No. 19 in the Township of Radnor, being the first crossing west of Garneau Station, Mileage 18-3, Grand mere Subdivision, Quebec.....	C.N.R.....	40	3,120 00
Two short arm gates, two flashing light signals and two bells, in lieu of watchman at Main Street, Two short arm gates, two flashing light signals and two bells in lieu of watchman at Tupper Street.....	Crossings of Main Street and crossing of Tupper Street, in the City of Portage la Prairie, Manitoba.....	C.N.R.....	40	12,520 00

CONTRIBUTION FROM RAILWAY GRADE CROSSING FUND—*Concluded*

Protection	Location	Railway	Per cent	Contributions \$ cts.
Two flashing light signals and one bell. Remove wye track eliminating two crossings and construct new wye.	116th Street north of 104th Avenue, Edmonton, Alberta.	C.N.R.	40	4,210 00
Overhead bridge.	Remove old wye and construct new wye at Mileage 51-9, Thessalon Subdivision, Ontario. Overhead at Highway No. 11-A in the north west quarter of section 14, Township 39, Range 7, West fifth Meridian, Mileage 39-4, Alberta Central Subdivision, Alberta.	C.P.R.	40	14,000 00
Three flashing light signals one bell, two short arm gates, one no left turn in lieu of manually operated gate.	Winchester Street in the City of Toronto, Ontario. First public crossing east of Chaudiere Station, Mileage 9-3 Drummondville Subdivision, Quebec.	C.N.R.	40	5,240 00
Two flashing light signals and one bell.	Crossing at Route No. 1 south of Disraeli Station, Mileage 52-4, Quebec Subdivision.	C.N.R.	40	2,580 00
Three flashing light signals and one bell.	First public crossing north of the Station at Gormley, Mileage 26, Bala Subdivision, Ontario.	Q.C.R.	40	3,720 00
Two flashing signals and one bell.	Downie Street, Stratford, Ontario. Crossing of Provincial Highway No. 13 at Mileage 121-5, Sherbrooke Subdivision, Quebec.	C.N.R.	40	2,360 00
Four flashing light signals, four short arm gates and three bells, in lieu of watchman.	Crossing of Highway No. 2 at Mileage 4-4, McLeod Subdivision, Alberta.	C.N.R.	40	11,700 00
Two flashing light signals and one bell.	Highway crossing at Mileage 38-5, Letellier Subdivision, Manitoba. Pottery Road, Township of East York, Ontario, Mileage 0-66, North Toronto Subdivision.	C.P.R.	40	3,200 00
Two flashing light signals and one bell.	Highway crossing at Mileage 38-5, Letellier Subdivision, Manitoba. Pottery Road, Township of East York, Ontario, Mileage 0-66, North Toronto Subdivision.	C.P.R.	40	3,680 00
Two flashing light signals and one bell with additional light units.	Highway crossing at Mileage 38-5, Letellier Subdivision, Manitoba. Pottery Road, Township of East York, Ontario, Mileage 0-66, North Toronto Subdivision.	C.N.R.	40	3,600 00
Two flashing light signals and one bell.	Highway crossing at Mileage 38-5, Letellier Subdivision, Manitoba. Pottery Road, Township of East York, Ontario, Mileage 0-66, North Toronto Subdivision.	C.P.R.	40	4,800 00
Two flashing light signals and one bell.	Highway crossing at Mileage 38-5, Letellier Subdivision, Manitoba. Pottery Road, Township of East York, Ontario, Mileage 0-66, North Toronto Subdivision.	C.N.R.	40	2,120 00
Two flashing light signals and one bell.	Highway crossing at Mileage 38-5, Letellier Subdivision, Manitoba. Pottery Road, Township of East York, Ontario, Mileage 0-66, North Toronto Subdivision.	C.N.R.	40	2,700 00
Two flashing light signals and one bell, in lieu of bell and wig wag.	Highway crossing at Mileage 38-5, Letellier Subdivision, Manitoba. Pottery Road, Township of East York, Ontario, Mileage 0-66, North Toronto Subdivision.	C. & O. Ry.	40	1,990 00
Two flashing light signals and one bell.	Highway crossing at Mileage 38-5, Letellier Subdivision, Manitoba. Pottery Road, Township of East York, Ontario, Mileage 0-66, North Toronto Subdivision.	C.N.R.	40	2,310 00
Two flashing light signals and one bell.	Highway crossing at Mileage 38-5, Letellier Subdivision, Manitoba. Pottery Road, Township of East York, Ontario, Mileage 0-66, North Toronto Subdivision.	C.N.R.	40	2,060 00
Two flashing light signals and one bell.	Highway crossing at Mileage 38-5, Letellier Subdivision, Manitoba. Pottery Road, Township of East York, Ontario, Mileage 0-66, North Toronto Subdivision.	C.P.R.	40	2,900 00
Two flashing light signals and one bell.	Highway crossing at Mileage 38-5, Letellier Subdivision, Manitoba. Pottery Road, Township of East York, Ontario, Mileage 0-66, North Toronto Subdivision.	C.P.R.	40	2,820 00
Widen highway and install two flashing light signals and one bell.	Highway crossing at Mileage 38-5, Letellier Subdivision, Manitoba. Pottery Road, Township of East York, Ontario, Mileage 0-66, North Toronto Subdivision.	C.P.R.	40	3,640 00

Improve sight lines.....	Crossing of the highway in the Municipality of Port Daniel West, Mileage 22.5, Chandler Subdivision, Quebec.....	C.N.R.....	40	1,575 00
Two flashing light signals and one bell.....	Relocated Coxheath crossing 175 feet southwest of Mileage 97.97, Sydney Subdivision, Nova Scotia.....	C.N.R.....	40	1,680 00
Two flashing light signals and one bell.....	Crossing of Highway No. 48 at St. Gerard-Magella near Vaucuse Station, Quebec.....	C.P.R.....	40	2,820 00
Two flashing light signals and one bell.....	Crossing of Muskoka Road in the Town of Gravenhurst, Mileage 111.83, Newmarket Subdivision, Ontario.....	C.N.R.....	40	630 00
Two flashing light signals and one bell.....	Crossing of Highway No. 5, being the second crossing west of station at St. Agapit, Mileage 12.92, Dunville Subdivision, Quebec.....	C.N.R.....	40	1,760 00
Two flashing light signals and one bell.....	Crossing of Highway No. 59 near Copper Creek in the Township of Dufferin, Quebec.....	Nipissing Central.....	40	1,800 00
One flashing light signal with electric short arm gate and one bell on each approaching lane to crossings...	Public road crossing near Current River, Ontario, Mileage 145.84, Lakehead Subdivision of the Canadian National Railways and Mileage 126.46, Nipigon Subdivision on the Canadian Pacific Railway.....	C.N.R. and C.P.R.....	40	4,760 00
Two flashing light signals and one bell.....	Crossing of Route No. 8 at McGivney Junction, Mileage 74.36, Nishnawbezi Subdivision, New Brunswick.....	C.N.R.....	40	2,080 00
Two flashing light signals and one bell, with special circuits.....	Highway No. 11, three-quarter of a mile south of the station at Ironsides, Mileage 2.28 Maniwaki Subdivision, Quebec.....	C.P.R.....	40	2,630 00
Two flashing light signals and one bell, with special circuits.....	Highway No. 46, in the Village of Macamic, County of Abitibi West, Mileage 15.82, Macamic Subdivision, Quebec.....	C.N.R.....	40	1,960 00
Two flashing light signals and one bell.....	Crossing of Highway No. 15, being the first public crossing west of the station at Elgin, Mileage 57.30, Smiths Falls Subdivision, Ontario.....	C.N.R.....	40	2,000 00
Two flashing light signals, two electric short arm gates, in lieu of manually controlled crossing gates.....	Rose de Lima Street, Montreal Quebec.....	C.N.R.....	40	6,360 00

TRANSPORT COMMISSIONERS FOR CANADA

THE STATEMENT BELOW SHOWS THE DIFFERENT WORKS WHICH WERE APPROVED FOR CONSTRUCTION BY ORDER OF THE BOARD ON RECOMMENDATION OF THE ENGINEERING DEPARTMENT AFTER STUDY OF THE APPLICATIONS AND PLANS, CHECKING OF ESTIMATES, INVESTIGATION OF COMPLAINTS AND ACCIDENTS, AND IN MANY CASES INSPECTION ON THE GROUND AND CONFERENCES WITH THE INTERESTED PARTIES DURING THE YEAR 1951

Province	Highway Crossings Approved	Highway Crossings Closed	Construction and Operation of Branch Lines and Industrial Spurs	Pedestrian Crossings	Bridges and Subways Approved	Approval of Operation Over and Under Bridges	Highway Diversions	Less Than Standard Clearance	Interlocking Plants and Changes to Interlocking Plants Approved	Operation Through Interlocking Plants	Crossings Protected by Flashing Light Signals and Bells	Changes in Operating Circuits of Flashing Light Signals and Bells and Wig Wags	Electrically Operated Gates and Flashing Lights	Water, Gas, Oil and Sewer Pipes Under and Over Railways	Rock and Snow Sheds	Mining Tunnels	Establish Sight Lines	Location of Telephone Lines	Exempt From Fencing and Cattle Guards	Abandonment of Operation of Railway Line	Approval and Changes to C.T.C. and Automatic Block Signals	Pipes Under Company Pipe Lines	Transportation of Gas or Oil Through Pipe Lines	Location of Pipe Line, Oil or Gas	Route Map—Oil and Gas	Drawbridge, Fixed	Signal Protection at Bridges	Route Map Approved—Railway	Operation Through Railway Tunnel	Relocate Railway	Railway Connections	Total	
B.C.	17	5	6	1	9	12		3	3		1			3	7						4					1				1		74	
Alta.	32	4	18		7	7		2	4	1	9		2	4		1						5	8	2	2	1			1			110	
Sask.	15	2	4		3	6	1		7	2	4			1							1			2	1							49	
Man.	32	1	10	1	2	5		3	6	6	6		1	1					2	1	1											78	
Ont.	59	15	30	2	11	13	2	16	22	7	40	15	13	2		1	3	18	7	1	23					1						301	
Que.	37	10	4	1	16	14	1	6	2	5	32	4	5				1				1					2			1	1	1	144	
N.B.	1		2			1		2	1		2	1					1															11	
N.S.	3	1	1				3	2			3									1												13	
P.E.I.	1	1			1																											4	
Nfld.	2													1																		4	
Total	199	39	75	5	49	58	7	34	45	21	97	20	21	12	7	2	5	18	9	3	35	8	4	3	3	2	2	1	1	2	2	1	788

Approval of Route Map—Oil and Gas

(1) From Montreal to a point near Hamilton, Ontario with a branch line to Ottawa, approximate mileage, 450 miles.

(2) From Edmonton to a point near Vancouver, British Columbia, approximate mileage, 695 miles.

(3) From a point in the Northeast Quarter of Section Eight, Township Three, Range Eight, West of the Fourth Meridian to a point on the International Boundary approximate mileage, 18 miles.

APPENDIX "E"

OTTAWA, Ontario,
February 18th, 1952.

P. F. BAILLARGEON, Esq.,
Secretary,
Board of Transport Commissioners,
OTTAWA, Ontario.

DEAR SIR:

1. Herewith, the Annual Report of the Operating Department for the year ended December 31st, 1951.

2. The accomplishment of the work, hereunder described, has necessitated the travelling of 496,071 miles by Officers of this Department.

3. During the year 1951 approximately 28,500,000 passengers travelled on Canadian Railways; the passenger train mileage for the year totalling approximately 47,000,000 miles.

4. PART I—OPERATING

Accidents attended by Loss of Life or Personal Injury

STATISTICS

<i>Accidents—</i>	
Total accident reports received from railways and investigated.....	3,427
Total persons killed.....	405
Total persons injured.....	3,815
<i>Fatalities—</i>	
Passengers.....	4
Employees.....	85
Trespassers and Others (Includes fatalities due to Highway Crossing Accidents).....	316
Total.....	405
<i>Injuries—</i>	
Passengers.....	566
Employees.....	2,461
Trespassers and Others (Includes injuries due to Highway Crossing Accidents).....	788
Total.....	3,815
<i>Highway Crossing Accidents—</i>	
Accidents.....	499
Persons killed.....	213
Persons injured.....	714

Detailed statistical data regarding accidents during the year 1951 are given in statements Nos. 1 to 5 (inclusive), appended hereto.

REMARKS

A Uniform Code of Operating Rules has been approved by the Board. These Rules became effective August 26th, 1951, with few exceptions, on railroads under the Board's jurisdiction.

Train operations are under constant review by the Board's Inspection Staff, including compliance with the Operating Rules and Safety Requirements.

The Inspection Staff have continued to review the condition of Stations and passenger equipment and investigations have been conducted with respect to applications involving major changes in train service and other matters with the object of ensuring adequate transportation facilities for the public.

PART II—MECHANICAL STATISTICS

<i>Motive Power—</i>	
Number of Locomotives	5,495
Reports of Hydrostatic Tests, Removal of Lagging and Dome Caps, Testing of Staybolts, Washouts, Boilers and Appurtenances, etc., received.....	67,140
<i>Inspection of Motive Power—</i>	
Locomotive Inspections	9,820
Locomotives found defective	2,136
Defects	3,341
<i>Locomotive Boilers—</i>	
(Application for extension of time for removal of flues)	
Applications received from railways.....	209
Internal inspections made.....	193
Applications granted.....	189
Applications refused.....	3
Applications withdrawn after inspection was made.....	1
<i>Stationary Boilers—</i>	
Number of stationary boilers.....	1,263
Inspection reports.....	3,019
Inspections made.....	335
Fire protective appliance inspection reports.....	2,487
<i>Safety Appliance and Equipment Inspections—</i>	
Freight cars inspected.....	83,180
Freight cars found defective.....	6,488
Defects.....	8,652
Passenger coaches inspected.....	7,361
Passenger coaches found with defects.....	521
Defects.....	743
<i>Inspection of Freight Cars for Correct Tare Weight—</i>	
Number of cars inspected.....	11,518
Number of cars found overdue for weighing for tare.....	477
<i>Inspection of Passenger Cars for Improper Air Brake Piston Travel—</i>	
Number of cars inspected.....	3,872
Number of cars with improper piston travel.....	97
<i>Inspection of Freight Cars for Improper Air Brake Piston Travel—</i>	
Number of cars inspected.....	23,744
Number of cars with improper piston travel.....	1,335

Detailed statistical data for the year 1951 are given in statements Nos. 6 to 9 (inclusive), appended hereto.

REMARKS

Inspection of Safety Appliances and Car Equipment

The work coming within this category is largely carried on under the provisions of Section 298 of the Railway Act and the Board's General Orders issued pursuant thereto. In this connection, reference is made to detailed statements 6 to 9 (inclusive). Progress continues in the matter of maintenance of draft and buffing gear, as well as in the matter of improved maintenance for various types of tank cars and their appurtenances. Inspection continues in connection with train lighting, heating and air-conditioning of passenger equipment.

Inspection of Motive Power

This important phase of the work continues, as is the riding of locomotives by Inspectors of the Board.

Newfoundland Railway

Further inspections have been carried out, and various operating and other problems continue to receive attention.

Motive Power

The following table indicates the number of steam and diesel locomotives on the two major Canadian railroads:

Year	Steam				Diesel Diesel-Electric	
	Coal Fired		Oil Fired		C.N.R.	C.P.R.
	C.N.R.	C.P.R.	C.N.R.	C.P.R.		
1947.....	2,407	1,584	100	122	75	55
1948.....	2,391	1,617	112	130	111	84
1949.....	2,319	1,490	190	230	148	132
1950.....	2,224	1,429	249	261	177	190
1951.....	2,188	1,398	252	266	280	232

The increased use of diesel-electric locomotives has created new problems. Consideration is being given to matters concerning safety appliances, report forms, diesel fuel handling, and storage facilities, mechanical rules and regulations, etc.

Air Brakes

The Board's Air Brake Inspectors carried out extensive field observations and inspections. These included inspection of approximately 20,000 passenger and freight cars to determine the acceptability of piston travel.

In addition to routine inspections, Air Brake tests on approximately 800 trains were observed and violations of the Air Brake Rules and Test procedure were noted and drawn to the attention of those concerned.

Preliminary action has been taken with the railway companies with respect to the preparation of a Uniform Code of Air Brake Rules.

Locomotive Headlights

During the year further tests were conducted in order to determine the acceptability of locomotive headlights and associated equipment. These investigations are being continued.

Air Operated Horns

The advent of Diesel Electric Locomotives has necessitated the replacement of conventional steam whistle by air operated devices.

Extensive laboratory and field investigations and tests have been carried out in order that devices capable of propagating distinctive and acceptable signals could be determined.

Smoke Abatement

The problem of smoke abatement continues to receive the attention of the department.

*Inspection and Testing of Air Reservoirs,
other than on Locomotives*

Pursuant to General Orders Nos. 576 and 714, 5,760 report forms of inspections were filed and checked in compliance with the Regulations covering 4,711 air reservoirs.

PART III—INFLAMMABLE LIQUIDS AND EXPLOSIVES

Inflammable liquids: Handling and Storage on and Adjacent to Railway Property.

Under the provisions of General Order No. 716 and Circular No. 241, there were 433 applications received for approval of location and changes to installations. These, together with 48 applications in abeyance from the previous year, were investigated and disposed of as follows:

Cancelled.....	8
In Abeyance.....	51
Approved and Orders Issued.....	374
	<hr/> 433 <hr/>

The 374 applications which were approved covered two refineries and 343 bulk storage plants; 129 of which were new installations.

The above applications include the railway companies' oil storage facilities for use of Diesel Motive Power.

Particulars of installations are as follows:

Number of Companies making Installations	Number of Installations	Number of Tanks Installed in 1951	Total Storage Capacity in Gallons (Imp.)
114	374	709	18,256,270

Developments in the oil fields in Western Canada have necessitated the approval of a number of temporary loading facilities to take care of the output, pending determination of the ultimate output of the wells.

Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight (Railway) and Specifications for Shipping Containers

AND

Regulations for the Transportation by Express of Acids, Compressed Gases, Inflammables, Oxidizing Substances, Explosives, etc., and Specifications for Shipping Containers

In order to provide more satisfactory means of promulgating these regulations to shippers and railways, their consolidation into one pamphlet is now under consideration. A number of meetings have been held and satisfactory progress made.

During the year a "Special Permit" system was introduced to authorize variations for exemptions from these regulations when necessary to permit transportation of certain dangerous commodities, provided they are offered for shipment in a manner acceptable to the Board.

Cylinders for the Handling of Compressed Gases

Manufacturers have shown continued interest in the production of various types of compressed gas cylinders in Canada, as well as the importation of cylinders. This has necessitated conferences and discussions with the manufacturers, users, and inspection agencies, concerning the appropriate rules and regulations. During the year four Canadian firms were producing cylinders to C.R.C. Specifications 3E, 4B, and 4BA

PART IV—FIRE PREVENTION

Detailed statistics are shown in statement No. 10 appended hereto, from which it will be noted 419 fires occurred during the fire season of 1951 within 14,745.94 miles of railway classified as forested territory. In addition, 141 fires were also reported as originating and burning in ties in the track which did not spread or cause damage other than to track ties.

RAILWAY FIRE PATROLS

The fire patrol requirements, under the terms of paragraph 29 of General Order No. 548, were addressed to all the railways concerned.

Statistics showing railway forested mileage upon which patrols are prescribed follow:

Total miles of railway classified as being in forested territory for fire protection purposes.....	14,745.94
Special section patrols prescribed on.....	5,491.31
Special Velocipede patrols prescribed on.....	201.96
Special power speeder patrols prescribed on.....	1,846.28
Other type special patrol prescribed on.....	70.00
Total miles on which special patrol prescribed.....	7,609.55
Total Special Patrolmen (estimated).....	952.00
Average number of miles of track per patrolman.....	7.99
Total miles in forested territory on which no special patrol required, detection, reporting, and extinguishing of fires being a part of the regular duties of the section forces and other employees.....	7,136.39

Weather Conditions

With the exception of the Coastal Region of British Columbia, weather conditions across Canada were on the whole favourable from a fire-fighter's standpoint.

Most of the Provinces, as usual, suffered short periods of high fire hazard with its resultant damage, notably Newfoundland during July, Quebec in May and June, and Ontario during May and July.

Inspection

Organization—Under the co-operative arrangements inaugurated in 1912 with the various Dominion and Provincial Forest Services, 267 officers and men of such services were under appointment as Inspectors for the Board.

Right-of-Way Clearing

During the 1951 fire season, a very large percentage of the forested mileage along the railways was inspected and reported on by the Board's District Fire Inspectors. These reports indicate that considerable progress was made in disposing of inflammable debris along these rights-of-way. However, as this matter is one of a continuing nature, the Board's Inspectors are continually on the alert to report hazardous conditions as they arise, and the matter is then dealt with as the occasion arises.

Fireguard Requirements

In accordance with the requirements, 3,964.2 miles of fireguards were constructed or maintained in uncultivated lands (fenced grazing and wild lands) in non-forested sections of the Prairie Provinces.

FIREGUARDS, 1951

Railway	Mileage both sides of track to be accounted for exclusive of approved exemptions	Fireguard mileage constructed or maintained during year	Percentage completion
Canadian National.....	3,026.5	1,581.2	52.2
Canadian Pacific.....	3,459.5	2,366.3	68.6
Northern Alberta.....	19.1	16.7	87.0
	6,505.1	3,964.2	60.94

F. S. HARTLE,
Director of Operation.

OPERATING DEPARTMENT

STATEMENT NO. 1—PASSENGERS, EMPLOYEES AND OTHERS KILLED AND INJURED
ON RAILWAYS UNDER THE BOARD'S JURISDICTION FOR YEAR ENDED
DECEMBER 31, 1951

Name of Railway	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Canadian National.....	3	225	47	1,238	148	387	1,611	198	1,850
Canadian Pacific.....	1	319	31	1,149	122	308	1,645	154	1,776
Algoma Central & Hudson Bay.....			1	7			4	1	7
British Columbia Electric.....		1		1	2	4	7	2	6
Chesapeake & Ohio.....				2	10	9	12	10	11
Cumberland Rly. & Coal.....				2			1		2
Dominion Atlantic.....		2		7	2	3	14	2	12
Esquimalt & Nanaimo.....				5	1	1	7	1	6
Essex Terminal.....				1	1	3	4	1	4
Grand River.....		1		2	2	1	5	2	4
Great Northern.....				3		8	7		11
Lake Erie & Northern.....					5	2	4	5	2
London & Port Stanley.....					1	7	6	1	7
Michigan Central.....			1		11	9	14	12	9
Midland Railway of Mani- toba.....			1	1		2	3	1	3
Montreal & Southern Counties.....				1	1	7	5	1	8
Napierville Junction.....			2	1			2	2	1
National Harbour Board.....				2			2		2
New York Central.....				9		1	10		10
Niagara, St. Catharines & Toronto.....		1		3	2	11	9	2	15
Northern Alberta.....		2		10	2	5	14	2	17
Oshawa.....				2		2	4		4
Quebec Central.....		7		2	2	5	9	2	14
Quebec Railway, Light & Power.....			1				1	1	
Sydney & Louisburg.....						3	3		3
Toronto, Hamilton & Buffalo.....			1	11	3	10	19	4	21
Toronto Terminals.....				2	1		3	1	2
White Pass & Yukon.....		8					2		8
Totals.....	4	566	85	2,461	316	788	3,427	405	3,815

STATEMENT NO. 2—PASSENGERS, EMPLOYEES AND OTHERS KILLED AND INJURED,
AND NATURE OF ACCIDENTS, FOR YEAR ENDED DECEMBER 31, 1951

Character of Accident	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Derailment.....		61	8	31		2	25	8	94
Collision head-on.....		12	11	36			13	11	48
Collision rear-end.....	1	46		29			12	1	75
Collision at Diamond crossing.....				2			1		2
Equipment struck in yard during switching or transfer movement in- cluding sideswipes of individual equipment in yards.....				37			28		37
Sideswipe.....				3			2		3
Public highway crossing protected by gates.....					1	12	9	1	12
Public highway crossing protected by gates— automatic.....					1		1	1	
Public highway crossing protected by bell.....					2	8	7	2	8
Public highway crossing protected by bell and wig-wag.....					27	50	53	27	50
Public highway crossing protected by flashing light signals and bells				2	10	27	26	10	29
Public highway crossing protected by watch- man.....						1	1		1
Public highway crossing unprotected.....		44	4	45	168	525	393	172	614
Private crossing.....		1		4	15	30	41	15	35
Trespassing.....					88	76	163	88	76
Working on or about engine				286			277		286
Miscellaneous.....	1	14	5	389		13	418	6	416
Adjusting couplers, coup- ling and uncoupling...			1	66		1	68	1	67
Run down by engine or car between stations.....			8				7	8	
Handcar—Accidents caus- ed by handcar, motor or velocipede.....			3	126		4	79	3	130
Handcar—motor-car, vel- ocipede struck by train			9	34			30	9	34
Crawling between cars, over couplers.....			1	8			9	1	8
Passing between cars, be- tween couplers.....			2	2		1	5	2	3
Struck by engine or cars on adjoining track.....			1	35		1	37	1	36
Struck by switch stand, water spout, mail crane, or other projec- tion.....				23			23		23
Crushed between cars and buildings, lumber piles				13		1	14		14
Explosion of locomotive boiler.....			1	3			1	1	3
Getting on and off passen- ger trains.....		85		1		2	87		88
Injured when taking coal or water.....			1	30			31	1	30
Rock slides, or other obstructions on track			1	16			9	1	16
Rough coupling.....		11		81		12	86		104
Riding on pilot or foot- board of engine.....				4			4		4
Obstructions, overhead and on ground.....				30			29		30
Repairing cars on repair track when moved.....				1			1		1
Falling off top of car.....				32		1	33		33

STATEMENT NO. 2—PASSENGERS, EMPLOYEES AND OTHERS KILLED*AND INJURED,
AND NATURE OF ACCIDENTS, FOR YEAR ENDED DECEMBER 31, 1951—*Conc.*

Character of Accident	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Falling between cars.....			1	6	1		8	2	6
Application and handling of air brakes, starting and stopping of trains, adjusting slack.....		31		142		1	158		174
Employees getting off train.....			1	265		1	267	1	266
Employees boarding train.....			2	133			135	2	133
Slipping on ice.....				51			51		51
Doors closing and other minor accidents in baggage cars and coaches.....		239		136		5	375		380
Run down by engine or cars at stations or in yards.....	1		14	36	1	1	53	15	38
Caught in frog, guard rail, or switch rod.....			1	2			3	1	2
Caught by engine or car while throwing switch Falling off side or end lad- ders or cars.....				3			3		3
			2	77			79	2	77
Handbrake — Accidents while working hand- brake.....				99		1	100		100
Handling freight or bag- gage.....				26			26		26
Loading and unloading O.C.S., materials.....			2	32			34	2	32
Staking or poling cars.....				1			1		1
Work train equipment.....			2	13	1		14	3	13
Cars moved while being loaded or unloaded.....				4	1	11	15	1	15
Carmen working on or under cars on running track when moved.....				4			3		4
Coupling or uncoupling hose Turning angle-cock.....			2	24			26	2	24
				7			7		7
Coach window falling.....		4					4		4
Loads shifting in transit or switching.....				8			8		8
Falling or jumping off pas- senger train between stations.....	2	12	2				16	4	12
Cars running away not under control.....		2		15		1	10		18
Washout.....		3		1			1		4
Individual derailment of equipment in yard tracks.....				6			6		6
Caught between running boards.....				1			1		1
Totals.....	4	566	85	2,461	316	788	3,427	405	3,815

STATEMENT No. 3—PARTICULARS OF ALL HIGHWAY CROSSING ACCIDENTS WITH DESCRIPTION OF PROTECTION OR NON-PROTECTION IN EFFECT FOR THE YEAR ENDED DECEMBER 31, 1951

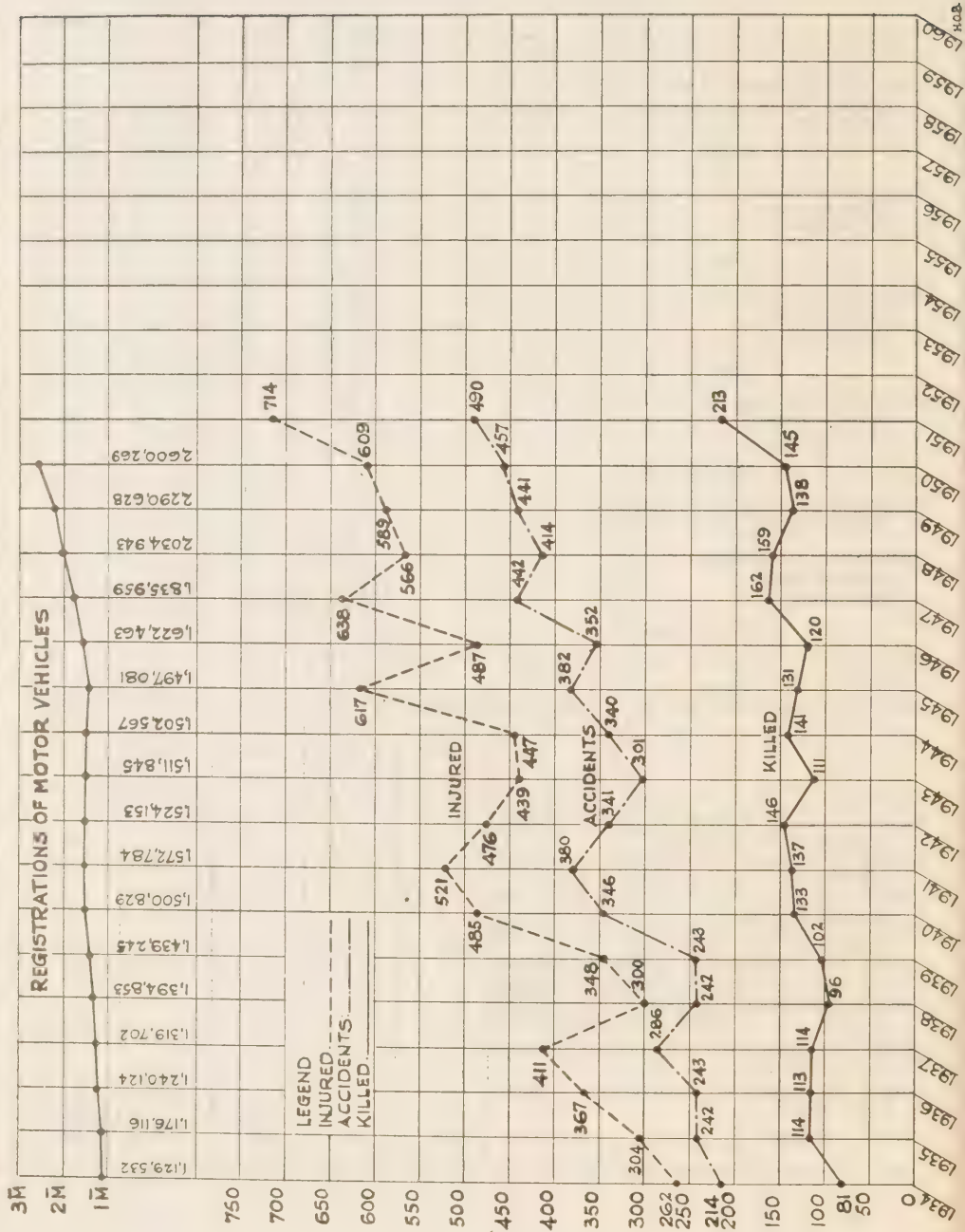
	Newfoundland			Prince Edward Island			Nova Scotia			New Brunswick			Quebec			Ontario			Manitoba			Saskatchewan			Alberta			British Columbia			Total		
	Accidents	Killed	Injured	Accidents	Killed	Injured	Accidents	Killed	Injured	Accidents	Killed	Injured	Accidents	Killed	Injured	Accidents	Killed	Injured	Accidents	Killed	Injured	Accidents	Killed	Injured	Accidents	Killed	Injured	Accidents	Killed	Injured			
Gates, Manual.....													2	1	2	8									1		2				9	1	12
Gates, Automatic.....													1	1																	1	1	
Bell.....									1	1	1	2	2	1	2	2	1	2												1	7	2	8
Bell and Wigwag.....									1	1	3	3	5	4	6	1	39	19	34	1		1							2	5	53	27	50
Flashing Light Signals and Bells.....									1		1	2	2	9	6	11	12	3	12	1		1			1	1	1		1	1	26	10	29
Watchman.....																	1		1												1		1
Unprotected.....	1		2	5	6	9	9	1	12	21	13	24	74	33	92	155	78	305	24	10	35	29	6	41	49	21	60	26	4	34	393	172	614
Total.....	1		2	6	7	10	14	2	17	26	13	33	92	48	108	215	101	362	26	10	37	29	6	41	51	22	63	30	4	41	490	213	714

STATEMENT No. 4—CONTRIBUTING FACTORS INVOLVED IN VARIOUS CLASSES OF CROSSING ACCIDENTS FOR YEAR 1951

	Accidents	Killed	Injured
<i>Motor Vehicles Struck by Train—</i>			
Daylight hours.....	173	108	262
Night hours.....	113	48	160
Total.....	286	156	422
<i>Horse-Drawn or Other Vehicles Struck by Train—</i>			
Daylight hours.....	1		1
Night hours.....	3		4
Total.....	4		5
<i>Pedestrians Struck by Train—</i>			
Daylight hours.....	12	8	4
Night hours.....	8	5	4
Total.....	20	13	8
<i>Motor Vehicles Running into Side of Train—</i>			
Daylight hours.....	50	19	74
Night hours.....	115	24	174
Total.....	165	43	248
<i>Accidents in which Track Cars Involved—</i>			
Daylight hours.....	15	1	31
<i>Total Number of Accidents—</i>			
Daylight hours.....	251	136	372
Night hours.....	239	77	342
Grand Total.....	490	213	714

	1947	1948	1949	1950	1951
Number of accidents which occurred at crossings protected by Gates, Manual.....	6	8	10	9	9
Number of accidents which occurred at crossings protected by Gates, Automatic.....					1
Number of accidents which occurred at crossings protected by Bell.....	8	6	3	7	7
Number of accidents which occurred at crossings protected by Bell and Wigwag.....	45	40	59	57	53
Number of accidents which occurred at crossings protected by Flashing Light Signals and Bells.....	6	10	19	22	26
Number of accidents which occurred at crossings protected by Automatic Highway Traffic Signals.....		1	2		
Number of accidents which occurred at crossings protected by Watchman.....	10	7	6	6	1
Number of accidents which occurred at crossings Unprotected.....	367	342	342	356	393
Total.....	442	414	441	457	490

STATEMENT No. 5—Graphic Chart showing Number of Highway Accidents indicating Number Killed and Injured (Operating Department).



STATEMENT No. 6—DEFECTS ON FREIGHT CARS REPORTED BY THE BOARD'S INSPECTORS FOR THE YEAR ENDED DECEMBER 31, 1951

	Number of Defects
Coupler and Parts.....	238
Height of Couplers.....	634
Truck and Spring Defects.....	1,490
Uncoupling Mechanism.....	202
Handholds.....	254
Sill Steps.....	228
Ladders.....	211
Running Boards.....	379
Handbrakes.....	641
Air Brake Cleaning Overdue or Cutout.....	748
Air Brake Defects Except Piston Travel.....	1,278
Side Doors, etc.....	537
Overdue for Weighing for Tare.....	477
Improper Air Brake Piston Travel.....	1,335
Total Defects.....	8,652

NUMBER OF FREIGHT CARS INSPECTED, SHOWING CARS DEFECTIVE, NUMBER OF DEFECTS, ALSO NUMBER OF CARS INSPECTED FOR OVERDUE FOR WEIGHING FOR TARE AND IMPROPER PISTON TRAVEL FOR THE YEAR ENDED DECEMBER 31, 1951

Railway	Cars Inspected	Cars Defective	No. of Defects	Cars Inspected	
				Overdue Tare	Improper Piston Travel
Canadian National.....	41,727	3,058	4,157	5,123	10,461
Canadian Pacific.....	37,215	3,145	4,054	6,145	12,531
Miscellaneous.....	4,066	223	302	250	752
Oil Company Tank Cars.....	172	62	139		
Total.....	83,180	6,488	8,652	11,518	23,744

STATEMENT No. 7—DEFECTS ON PASSENGER CARS REPORTED BY THE BOARD'S INSPECTORS FOR THE YEAR ENDED DECEMBER 31, 1951

	Number of Defects
Coupler and Parts.....	19
All Truck Defects.....	130
Handholds, Sill Steps and Running Boards.....	63
Handbrakes.....	58
Air Conditioning Defects.....	4
Heating Systems.....	10
Drinking Water and Water Raising Systems.....	4
Car Lighting Defects.....	17
Condition of Car Body.....	94
Air Brake Cleaning Overdue.....	83
Air Brake and Signal Line Defects Except Piston Travel.....	156
Miscellaneous.....	8
Improper Air Brake Piston Travel.....	97
Total Defects.....	743

NUMBER OF PASSENGER CARS INSPECTED, SHOWING CARS DEFECTIVE, NUMBER OF DEFECTS, ALSO NUMBER OF CARS INSPECTED FOR IMPROPER PISTON TRAVEL FOR THE YEAR ENDED DECEMBER 31, 1951

Railway	Cars Inspected	Cars Defective	No. of Defects	Cars Inspected
				Improper Piston Travel
Canadian National.....	3,115	220	303	1,215
Canadian Pacific.....	4,175	295	434	2,629
Miscellaneous.....	71	6	6	28
Total.....	7,361	521	743	3,872

STATEMENT No. 8—NUMBER OF LOCOMOTIVES INSPECTED, AND NUMBER OF DEFECTS ON RAILWAYS, FOR THE YEAR ENDED DECEMBER 31, 1951

Classification	Total Defects
Air Compressor.....	61
Arch Tubes.....	2
Ashpans or Mechanism.....	3
Axles.....	2
Blow-off Cocks.....	89
Boiler Checks.....	35
Boiler Shell.....	29
Brake Equipment.....	520
Cabs, or Cab Windows.....	47
Cab Aprons or Decks.....	29
Cab Cards.....	9
Coupling or uncoupling Devices.....	26
Crossheads, Guides, Pistons or Piston Rods.....	81
Crown Bolts.....	4
Cylinders, Saddles or Steam Chests.....	14
Cylinder Cocks or Rigging.....	42
Domes or Dome Caps.....	6
Draft Gear.....	114
Draw Gear.....	15
Driving Boxes, Shoes, Wedges or Pedestals.....	95
Firebox Sheets.....	8
Flues.....	3
Frames, Tail Pieces or Braces, locomotive.....	41
Frames, Tender.....	5
Gauges or Gauge Fittings, Air.....	46
Gauges, Steam.....	64
Gauge Cocks.....	16
Grate shakers, and Fire Doors.....	2
Handholds.....	143
Injectors inoperative.....	9
Injectors and connections.....	106
Inspections or tests not made as required.....	14
Lateral motion.....	65
Lights, Cab or Classification.....	8
Lights, headlight.....	16
Lubricators and appurtenances.....	2
Mudrings.....	1
Packing nuts.....	4
Packing, Piston Rod and Valve Stem.....	11
Pilot or Pilot Beams.....	50
Plugs or Studs.....	37
Reversing Gear.....	8
Rods, main and side, Crank pins or collars.....	12
Safety Valves.....	8
Sanders.....	34
Springs or Spring Rigging.....	331
Squirt Hose.....	10
Staybolts.....	15
Staybolts broken.....	2
Steam Pipes.....	61
Steam valve.....	87
Steps.....	126
Tender.....	100
Tell-tale holes.....	1
Throttle or dry pipes.....	50
Trucks, engine.....	51
Trucks, tender.....	110
Valve motion.....	49
Washout plugs.....	30
Train control.....	7
Water glass, Fittings or Shields.....	93
Wheels.....	110
Miscellaneous.....	43
Fire Protective Appliances.....	129
Total Defects.....	3,341

TRANSPORT COMMISSIONERS FOR CANADA

STATEMENT No. 8—NUMBER OF LOCOMOTIVES INSPECTED, AND NUMBER OF DEFECTS ON RAILWAYS, FOR THE YEAR ENDED DECEMBER 31, 1951—*Concluded*

	Locomotives Inspected	Locomotives Defective	Total Defects
Canadian National.....	5,018	1,058	1,596
Canadian Pacific.....	3,785	827	1,301
Miscellaneous.....	1,017	251	444
Total.....	9,820	2,136	3,341

REPORT OF THE COMMISSIONERS

Railway	Date	Engine No.	Place	Remarks
Canadian Pacific	November 23rd	CP 5399	<i>Boiler Explosions</i> Birehton, west of, Megantic Subdivision, mileage 62.1, Quebec	Boiler exploded due to low water derailing train.
Canadian National	March 10th	CN 2369	<i>Crown Sheets Damaged</i> Fort Erie, Ontario	Crown sheet damaged due to absence of water in boiler when fire lighted.
Canadian National	March 17th	CN 1028	Stephenville crossing, Port-aux-Basques Subdivision, mileage 452.48, Newfoundland	Crown sheet damaged due to low water. Crown stays leaking due to boiler being fired up without sufficient water.
Canadian National	October 25th	CN 6036	Fort Rouge, Manitoba	Crown sheet damaged due to low water.
Canadian Pacific	May 15th	CP 5342	Morley, Alberta	Crown sheet damaged due to low water.
Canadian Pacific	August 11th	CP 1231	En route, Toronto to Havelock, Ontario	Crown sheet damaged due to low water.
Canadian Pacific	August 19th	CP 1026	Rocky Mountain House, Alberta	Crown sheet damaged due to low water.
Canadian Pacific	August 19th	CP 1213	Winnipeg Beach Subdivision, mileage 1.5, Manitoba	Crown sheet damaged due to low water.
Canadian Pacific	September 26th	CP 5762	Field, British Columbia	Crown sheet damaged due to low water.
Canadian Pacific	September 30th	CP 6942	Winnipeg, Manitoba	Crown sheet damaged due to low water.

SUMMARIES

Boiler Explosions

Canadian National	Nil
Canadian Pacific	1
Total	1

Crown Sheets Damaged

Canadian National	3
Canadian Pacific	6
Total	9

STATEMENT No. 10.—SUMMARY OF REPORTS ON FIRES IN FOREST SECTIONS ORIGINATING WITHIN 300 FEET OF TRACK
ALONG RAILWAY LINES UNDER THE JURISDICTION OF THE BOARD, SEASON OF 1951

	Canadian National (Atlantic Region) (a)	Canadian National (Central Region)	Canadian National (Western Region) (b)	Canadian Pacific (Pacific Region) (c)	Algonia Central and Hudson Bay	Northern Alberta	Great Northern	Miscellaneous (d)	Totals
<i>Fires of Railway Origin—</i>									
<i>Number by causes—</i>									
Locomotive, Class A fires.....	37	25	14	14	4	2	1	4	122
Locomotive, Class B fires.....	19	29	16	34	23	4		1	139
Locomotive, Class C fires.....	4	8	3	4	4				26
Employees, Class A fires.....	3	1	8	3	1	1			17
Employees, Class B fires.....	1	1	7	8	2				14
Employees, Class C fires.....	1	2	2	2	1				8
Total, Class A fires.....	40	26	22	17	5	2	1	4	139
Total, Class B fires.....	19	30	23	37	14	4		1	153
Total, Class C fires.....	4	9	5	6	3				34
Total.....	63	65	50	60	22	6	1	5	325
<i>Areas burned (acres)—</i>									
Young forest growth.....	671	8,375	44	197	13	4			10,261
Merchantable timber.....	1,285	3,064	15	15	9				4,845
Slashing or old burn.....	4	193	62	2	15				331
Other classes of land.....	652	178	37	135	46	10		10	1,485
Total.....	2,612	11,810	539	349	83	14		10	16,923
<i>Value of property destroyed—</i>									
Young forest growth.....	\$ 750	\$ 36,485	\$ 177	\$ 63	\$ 18	\$	\$	\$	\$ 38,242
Standing timber.....	1,730	18,299	540	76	43				20,693
Forest products.....			1,030	452	150				2,009
Other property.....	20	307							
Total.....	2,500	55,101	1,747	591	211				60,944
<i>Known causes other than Railway—</i>									
<i>Number of causes—</i>									
Campers and Travellers, Class A fires.....	2	4	3						14
Campers and Travellers, Class B fires.....		5	2	2	1				17
Campers and Travellers, Class C fires.....		3							3
Settlers, Class A fires.....			1						1
Settlers, Class B fires.....			1						2
Settlers, Class C fires.....			3						1
Other known causes, Class A fires.....	3	1		3	4				11
Other known causes, Class B fires.....	3			1	4				11
Other known causes, Class C fires.....					1				1
Total, Class A.....	5	5	3	3	9				26
Total, Class B.....	3	5	6	3	11				30
Total, Class C.....		3	1		1				5
Total.....	8	13	10	6	1				61

Areas burned (acres) —									
Young forest growth.....	1	12	6	1	7				27
Merchantable timber.....	1	1	14						14
Slashing or old burn.....	1	51	5	1	24				32
Other classes of land.....				5	18				77
Total.....	3	64	25	5	49	2			150
Value of property destroyed —									
Young Forest growth.....	\$ 4	\$ 24	\$ 31	\$	\$	\$	\$	\$	\$ 169
Standing timber.....			1,223		110				1,223
Forest products.....	200	60		7	55				322
Other property.....									
Total.....	204	84	1,254	7	165				1,714
Fires of Unknown Origin —									
Number —									
Class A.....	7	1		1	4				13
Class B.....	6	4	2	1	3				16
Class C.....	1		1	1					3
Total.....	14	5	3	3	7				32
Areas burned (acres) —									
Young forest growth.....	2	1							3
Merchantable timber.....									3
Slashing or old burn.....	351	8	22	97	1				481
Other classes of land.....					3				
Total.....	353	9	22	99	4				487
Value of property destroyed —									
Young forest growth.....	\$ 10	\$ 60	\$ 1	\$	\$	\$	\$	\$	\$ 71
Standing timber.....									
Forest products.....	30				40				40
Other property.....									30
Total.....	40	60	1		40				141

(a) Includes Province of Newfoundland.

(b) Includes Dominion Atlantic Railway.

(c) Includes Esquimalt and Nanaimo Railway.

NOTE:—No fires were reported during 1951 as originating within 300 feet of the

NOTE:—No fires were reported during 1951 in forest sections along the following lines:—Cumberland Railway and Coal Co.; Maine Central; Maritime Coal, Railway and Power Co.; Spokane International Railway Co.; White Pass and Yukon Railway Co.

Class A fires are those which cover an area less than one-fourth acre, regardless of amount of damage.

Class B fires are those which cover an area of one-fourth acre to ten acres.
Class C fires are those which cover an area over ten acres.

APPENDIX "F"

February 2nd, 1952.

MEMORANDUM TO:

Mr. P. F. BAILLARGEON,
Secretary,
Board of Transport Commissioners,
OTTAWA.

Submitted herewith is the annual report of the Bureau of Transportation Economics for the year ended December 31st, 1951.

The demand for studies and reports on the economic aspects of transportation continued to increase during 1951. The majority of work assignments originated in the Board of Transport Commissioners and in the Air Transport Board. The balance involved assistance to various departments of the government on problems in which transportation was one of the several factors involved. In total, 132 studies and reports were completed during the year.

Railways

The Board's 1949 Waybill Study, which was processed during 1950 and which involved publication of the "Carload All-Rail Traffic" study in August, 1950, and the "Less Than Carload All-Rail Traffic" study in December, 1950, was carried on during 1951. The data were used in numerous analyses, including those in connection with equalization of freight rates.

The second Waybill Study was carried out during 1951 with the railways submitting carload waybills for the dates January 10th, April 11th, July 11th and October 10th. A total of 25,077 carload waybills were received representing an increase of 12.1% over the 22,365 carload waybills received for the four test dates of 1949. Work on the preparation of this analysis was well advanced at the end of the year and the results will be published in 1952.

Monthly financial and statistical returns of rail carriers were processed, tabulated and analysed in regular reports to the Board. Based on preliminary estimates for the year 1951, the operating revenues of Canadian Railways increased 13.2% to \$1,085,546,000 from \$958,985,751 in 1950, while operating expenses increased by 16.7% to \$973,321,000 from \$833,726,562 in 1950. The dollar increase in expenses also exceeded that in revenues and resulted in a decline in 1951 net operating revenue to \$112,225,000 from \$125,259,189 in 1950. Freight rate increases and additional traffic contributed to the improved revenues. Revenue freight ton-miles increased 14.3% and revenue passenger miles advanced 8.3% over 1950. On the other hand expenses outpaced revenues because of increased wages and salaries, cost of materials and additional personnel necessary under the five-day week. A summary of railway statistics from 1938 to 1951 is tabulated below.

Year	Operating Revenues	Operating Expenses	Net Operating Revenue	Operating Ratio	Revenue Freight Ton-Miles	Revenue Passenger Miles
	\$	\$	\$		(000)	(000)
1938.....	336,833,400	295,705,638	41,127,762	87.8	26,834,697	1,783,178
1939.....	367,179,095	304,373,285	62,805,810	82.9	31,464,991	1,751,973
1940.....	429,142,659	335,287,503	93,835,156	78.1	37,898,196	2,176,468
1941.....	538,291,947	403,735,542	134,558,405	78.0	49,982,467	3,205,542
1942.....	663,610,570	485,783,584	177,826,986	73.2	56,153,953	4,989,296
1943.....	778,914,565	560,597,204	218,317,361	72.0	63,915,074	6,525,064
1944.....	796,636,786	634,774,021	161,862,763	79.7	65,928,079	6,873,183
1945.....	774,971,360	631,497,562	143,473,798	81.5	63,349,095	6,380,155
1946.....	718,501,764	623,529,473	94,972,292	86.8	55,310,308	4,648,558
1947.....	785,177,920	690,281,049	94,356,871	88.0	60,143,035	3,732,777
1948.....	875,833,590	808,127,528	67,706,062	92.3	59,408,930	3,660,646
1949.....	894,397,264	831,456,446	62,940,818	93.0	56,338,231	3,193,174
1950.....	958,985,751	833,726,562	125,259,189	86.9	55,537,900	2,816,154
1951 (Est.).....	1,085,546,000	973,321,000	112,225,000	89.7	63,453,000	3,051,000

Airways

During the year the Bureau completed fifty audits, surveys and investigations at various points across Canada. These field studies consisted of:

Regular Audit Survey.....	32
Special air carrier investigations.....	14
Airport accounting surveys.....	4

The airport accounting surveys involved the study of the accounting systems in use at each of four major airports at Ottawa, Montreal, Toronto and Gander.

A detailed study of air carrier monthly and annual reporting forms was conducted during 1951 and revised reporting forms were prepared for use as of January 1, 1952. A revised Classification of Accounts for air carriers was made effective at the same date.

A total of 53 major reports were made on the financial position and the economic prospects of applicants for Air Transport Board licences; in addition, comments were prepared on existing licences and airfields. Special studies were also undertaken for the Board in respect to current problems and potential developments in the industry.

Recurrent reports on Canadian air carriers were prepared and forwarded to the International Civil Aviation Organization. Scheduled airline traffic surveys were conducted during the months of March and September in conjunction with similar surveys conducted by the U.S. Civil Aeronautics Board.

The regular monthly and annual reports of air carriers were processed, and the statistical trends were analysed in quarterly reports to the Board. Preliminary estimates for the year 1951 show that total operating revenues of all domestic carriers increased by 16% to \$53,893,000 from \$46,367,317 in 1950. Operating expenses increased by 8% to \$48,845,000 from \$45,098,036. Net operating revenues were \$5,048,000 in 1951 as contrasted with \$1,269,281 in 1950. These figures reflected increases of 22.6% in revenue passengers, 6% in mail and 27% in revenue goods carried. A summary for all carriers is shown below for the years 1947 to 1951:

Year	Operating Revenues	Operating Expenses	Net Operating Revenue	Revenue Passengers	Pounds of Mail	Tons of Revenue Goods
	\$	\$	\$			
1947.....	26,834,086	29,321,490	Dr 2,487,404	693,560	5,908,775	15,039
1948.....	33,712,329	34,799,670	Dr 1,087,341	880,407	8,893,682	15,973
1949.....	39,581,021	40,380,598	Dr 799,577	998,067	12,141,798	15,319
1950.....	46,367,317	45,098,036	1,269,281	1,233,158	13,113,275	19,897
1951 (Est.).....	53,893,000	48,845,000	5,048,000	1,512,000	13,903,000	25,000

G. A. SCOTT,
Director.

APPENDIX "G"

STATEMENT SHOWING TOTAL NUMBER OF APPLICATIONS MADE TO THE BOARD UNDER THE VARIOUS SECTIONS OF THE RAILWAY ACT, ALSO COMPLAINTS AND REPORTS FILED FOR THE YEAR ENDED DECEMBER 31, 1951

Sections of the Railway Act	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Pipe Lines Act.....	2	1	4	1	1	5	1	4	2	11	2	1	35
Traffic Agreement, Sec. 154.....			1										1
Railway as constructed, Sec. 165.....			1		1					1			2
Location of Lines, Sec. 167.....			1										1
Deviations, Changes, Sec. 178.....		2	3	1	1		2			2			9
Removal of Stations, Sec. 179.....		1	2					1	4	3			9
Branch Lines, Sec. 180-7.....	5	1	2		1	1	1	3	1	2		2	20
Station Buildings, Sec. 188.....	2	1	4	1	2	8	6	3	1	2			22
Station Agents, Sec. 188.....			1	1	2	2	1		1	2	7		16
Station Accommodation, Sec. 188.....			1	1	3	4	1			2			9
Operation of Trains over sidings, Sec. 165A-193.....	1	5	1	1			3			1			12
Viaducts, Secs. 249-51.....	1		1					2			1		5
Stations, Freight Sheds destroyed by fire.....	1			1	1	1			1			1	5
Subways, Secs. 249-51.....		1	4	5	2	1	1	2	1	2	7	1	27
Bridges, Secs. 249-51.....	1	1	16	13	12	12	9	10	8	6	6	10	104
Clearances, Sec. 250.....	1	7	3	5	3	4	1	2	4	1	3	1	35
Interlocking Appliances, Sec. 252.....	1	2	4	11	3	1		2			2	2	29
Highway Crossings, Sec. 256.....	10	12	10	27	22	24	22	20	30	13	20	14	224
Highway Diversions, Sec. 257.....			1	1									2
Steam Pipes, Sec. 262.....	1												1
Ditches, Sec. 268.....	1			1									2
Culverts, Sec. 268.....					1	2							3
Sewers, Sec. 269.....	2										1		3
Water Pipes, Sec. 269.....											1		1
Farm and Private Crossings, Secs. 272-3.....	6	2	3	2	2		1	3	1		1		20
Cattle Guards, Sec. 274.....			2		1								3
Accident Reports, Sec. 286.....	82	74	69	44	48	48	54	59	5	108	7	8	131
Protection at Crossings, Sec. 257.....	21	26	29	34	22	33	36	35	23	32	26	68	733
Uniformity of Rules, Sec. 288.....						9						11	328
Rolling Stock, Sec. 288.....	1	1	1	1		1		1	1			1	5
Adjustment in Rates.....	1	1	1	1	1	1		3			2		10
Train Service, Secs. 302-4.....	1		2	2	1	1		2	1	4	4		18
Whistling by Locomotives, Sec. 308.....	2				1			2	1	1		1	6
Accommodation for Traffic, Sec. 312.....	5		2	2	2	2	5	3	1	1	5		33

APPENDIX "H"

GENERAL ORDER 748.

In the matter of the application of the Railway Association of Canada on behalf of its members operating in Western Canada, for an Order rescinding or amending paragraph 4 and rescinding paragraph 5 of General Order No. 54, dated January 6, 1910, relating to stations and station agents:

Case No. 871.

FRIDAY, the 19th day of January, A.D. 1951.

HUGH WARDROPE, *Asst. Chief Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

W. J. PATTERSON, *Commissioner.*

Upon hearing the application at the sittings of the Board held at Saskatoon, Saskatchewan, on November 15 and 16, 1950, at Edmonton, Alberta, on November 17, 1950, and at Winnipeg, Manitoba, on November 24, 1950, in the presence of counsel and representatives of the Railway Association of Canada, the Canadian Pacific Railway Company, the Canadian National Railways, the Associated Boards of Trade of Saskatchewan, Saskatchewan Farmers' Union, Tway Board of Trade, North Battleford Board of Trade, United Grain Growers Limited, Manitoba Federation of Agriculture and Co-operation, Winnipeg Chamber of Commerce, Manitoba Joint Legislative Committee of the Standard Railway Transportation Organizations, and the Province of Alberta—

It is ordered that General Order No. 54 be, and it is hereby, amended by striking out paragraphs numbered 4 and 5 thereof.

M. B. ARCHIBALD,
Chief Commissioner,
The Board of Transport Commissioners for Canada.

GENERAL ORDER NO. 749

In the matter of the Regulations for the Transportation by Express of Acids, Compressed Gases Inflammables, Oxidizing Substances, Explosives, Etc., and Specifications for Shipping Containers:

File No. 1717-12-194.

SATURDAY, the 10th day of February, A.D. 1951.

HUGH WARDROPE, *Asst. Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

W. J. PATTERSON, *Commissioner.*

Upon reading the submissions filed—

It is ordered that the Regulations for the Transportation by Express of Acids, Compressed Gases, Inflammables, Oxidizing Substances, Explosives, etc., and Specifications for Shipping Containers, which were approved by General Order No. 678, dated December 3, 1945, be, and they are hereby, amended as follows:

1. By striking out the words, "not accepted", in the line commencing with the words, "Blasting Caps", on page 8 thereof, and substituting therefor the words, "Samples Only," and by adding to the said line in the column headed, "Classed as . . .", the words, "See Sec. 38½";

2. By striking out paragraph (b) of Item No. 2 of Section 22 on page 23 thereof and substituting therefor the following paragraph:

"(b) Weight: Maximum net weight of one sample is one-half pound. The maximum number and weight of samples that may be packed in one outside box or be transported in any one train, must not exceed twenty (20) one-half pound samples."

3. By striking out Section 31½ on page 26 thereof and substituting therefor the following section:

"31½ (a) Explosive Cable Cutters are used for cutting cables, etc.

They consist of a metal device containing a knife-edged component, which is propelled by a small charge of an explosive compound.

(1) Packing—Strong wooden boxes.

(2) Marking—Each outside container must be plainly marked, "EXPLOSIVE CABLE CUTTERS—HANDLE CAREFULLY".

(3) Maximum quantity in any one outside container is 150 pounds.

(b) Explosive Rivets, each containing not more than 75 milligrams of explosive composition, are exempt from specification packaging and labelling requirements when packed in pasteboard or other inside boxes in securely closed strong wooden boxes, fibreboard boxes or metal containers.

(1) Marking—Each outside container must be plainly marked, "EXPLOSIVE RIVETS".

(2) Maximum quantity in any one outside container is 150 pounds.

(3) No other restrictions apply.

4. By adding immediately after Section 38 on page 26 thereof the following Section:

"38½. BLASTING CAPS.—SAMPLES ONLY."

- (a) Not more than 100 blasting caps may be shipped in one outside package for laboratory examination. The blasting caps are to be contained in a metal envelope or receptacle. This receptacle must be properly cushioned with sawdust or similar cushioning material in a strong wooden box, and this interior box must be packed in a wooden box, Spec. 14 or 15A, with at least 2 inches of cushioning material separating the boxes.
- (b) When samples are taken from a defective lot of blasting caps not more than five (5) blasting caps may be offered for shipment. Special packing required. Application must be made to the Board of Transport Commissioners for information as to manner of packing.
- (c) Marking—Each outside package must be plainly marked "(number) BLASTING CAPS — HANDLE CAREFULLY", "(number) ELECTRIC BLASTING CAPS — HANDLE CAREFULLY", or "(number) BLASTING CAPS WITH SAFETY FUSE — HANDLE CAREFULLY". In addition, each box must bear the marking "DO NOT STORE OR LOAD WITH ANY HIGH EXPLOSIVE".

NOTE: The number of caps must be shown in the marking.

- (d) Label—Red Label for samples of explosives as provided in Section 22, Item No. 1(d).

HUGH WARDROPE,
Assistant Chief Commissioner
The Board of Transport Commissioners for Canada.

GENERAL ORDER No. 750

In the matter of a Uniform Code of Operating Rules for Railway Companies.

File No. 43757.

SATURDAY, the 7th day of April, A.D. 1951.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

W. J. PATTERSON, *Commissioner.*

In pursuance of the powers conferred upon the Board by sections 287 and 288 of the Railway Act and of all other powers possessed by it in this behalf:

It is ordered:

1. That the operating rules hereto attached marked "A" and certified by the Secretary of the Board, be, and they are hereby, approved and prescribed as the operating rules of all railway companies subject to the jurisdiction of the Board, except railway companies which the Board by order exempts from the application of this order.

2. That this Order shall come into force on the 26th day of August, 1951.

M. B. ARCHIBALD,

Chief Commissioner,

The Board of Transport Commissioners for Canada.

GENERAL ORDER No. 751

In the matter of the General Order of the Board No. 77, dated May 30, 1911.

File No. 16781.

THURSDAY, the 26th day of April, A.D. 1951.

Hon. Mr. JUSTICE M. B. ARCHIBALD, *Chief Commissioner.*

HUGH WARDROPE, *Asst. Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

W. J. PATTERSON, *Commissioner.*

Upon reading the submissions filed—

It is ordered that General Order No. 77, dated May 30, 1911, be, and it is hereby, rescinded.

M. B. ARCHIBALD,

Chief Commissioner,

The Board of Transport Commissioners for Canada.

GENERAL ORDER No. 752

In the matter of the application of The Railway Association of Canada, for and on behalf of its member lines operating in Canada, under Sections 33, 34, 45, 312 and all other relevant Sections of the Railway Act, for an Order requiring all railways within the Board's jurisdiction to reinstate at the earliest possible date and to continue in effect until rescinded by the Board, regulations covering the Maximum Loading of railway freight cars and Special Penalty Charges for delay to freight cars as provided for in Canadian Freight Association Tariff No. 67, C.T.C. No. 1416, which tariff was suspended effective April 1, 1949, in compliance with Board's Order No. 72003, dated February 15, 1949.

File No. 43356.8.

THURSDAY, the 26th day of April, A.D. 1951.

Hon. Mr. JUSTICE M. B. ARCHIBALD, *Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

Upon hearing the application at the sittings of the Board held at Ottawa on March 30 and April 3, 1951, in the presence of counsel for The Railway Association of Canada, the Canadian Pacific Railway Company and the Canadian National Railways and counsel for and representatives of the Canned Foods Association of Ontario and Canadian Food Processors Association, Canadian Fruit Wholesalers Association, Southern Ontario Fruit and Vegetable Shippers Association, the Montreal Board of Trade, Dominion Glass Company Limited, Fish Council of Canada, Canadian Manufacturers Association, Canadian Electrical Manufacturers Association, Transportation Commission of Maritime Board of Trade, Toronto Board of Trade, Canadian Lumbermen's Association, Canadian Industrial Traffic League, and Horticulture Council of Canada—

It is ordered

1. That the application be, and it is hereby, dismissed;
2. That General Order No. 201 be, and it is hereby, amended by striking out Rule 9 of the Canadian Car Demurrage Rules in the said General Order set out and substituting therefor the following:

“Rule 9.—DEMURRAGE CHARGE.

After the expiration of the free time allowed, the following charges shall be made until the car is released:

For the first day, or fraction thereof, of delay,	Three Dollars.
For the second day, or fraction thereof, of delay,	Three Dollars.
For the third day, or fraction thereof, of delay,	Five Dollars.
For the fourth day, or fraction thereof, of delay,	Five Dollars.
For the fifth and each succeeding day or fraction thereof, of delay,	Seven Dollars.”

3. That the provisions of paragraph numbered 2 hereof shall come into force on the first day of May, 1951.

M. B. ARCHIBALD,
Chief Commissioner,

The Board of Transport Commissioners for Canada.

GENERAL ORDER No. 753

In the matter of Regulations respecting devices for the sounding of Engine Whistle Signals and with regard to Engine Bells.

File No. 31430-30.

TUESDAY, the 8th day of May, A.D. 1951.

Hon. Mr. JUSTICE M. B. ARCHIBALD, *Chief Commissioner.*

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

W. J. PATTERSON, *Commissioner.*

It is ordered that the regulations hereinafter set out under the heading, "Regulations in regard to devices for the sounding of Engine Whistle Signals and in regard to Engine Bells", be, and they are hereby, made and adopted in respect to motive power units capable of independent operation excepting steam locomotives.

In these regulations—

(a) The words "Motive Power 'A' and 'B' units" or "Motive power unit", do not include steam locomotives.

(b) The word "whistle" includes a horn.

REGULATIONS IN REGARD TO DEVICES FOR THE SOUNDING OF ENGINE WHISTLE SIGNALS AND IN REGARD TO ENGINE BELLS.

Road Service Units

1. Within one year of the date of this Order motive power "A" units operated regularly or temporarily in road service, including road-switching units, shall be equipped with horns having tonal characteristics simulating the sound of conventional steam locomotive whistles. The horns must be tuned in chords of not less than three tones to produce a harmonious sound, and the grouping and location of the horns shall be such as to make the sound practically omnidirectional and suitable for the effective sounding of the prescribed Engine Whistle Signals.

2. Each motive power "B" unit shall be equipped with a suitable warning device for use when making hostling or similar movements.

Yard Service Units

3. Motive power units assigned to yard service shall be equipped with a horn of such type as will meet the requirements of the individual railway companies.

Approval

4. Specifications of the horns to be used on Road and Yard Service Motive Power Units to be submitted to the Board for approval (See Chap. 70, 11 Geo. VI—An Act to amend the Railway Act—assented to 17th July, 1947: "Section two

of the Railway Act, chapter one hundred and seventy of the Revised Statutes of Canada, 1927, is amended by inserting immediately after paragraph thirty-five thereof, the following paragraph: "(35a) 'whistle' includes a horn of any type approved by the Board.")

Engine Bells

5. Each motive power unit capable of independent operation other than "B" units must be equipped and maintained with a bell of at least 30 pounds weight.

General

6. This Order shall apply to all railway companies subject to the jurisdiction of the Board except railway companies which the Board by Order exempts from the application of this Order.

M. B. ARCHIBALD,

Chief Commissioner

The Board of Transport Commissioners for Canada.

GENERAL ORDER No. 754

In the matter of rules covering the preparation of accounts to apply to joint projects undertaken under Order of the Board.

File No. 11026-74.

MONDAY, the 7th day of May, A.D. 1951.

Hon. Mr. JUSTICE M. B. ARCHIBALD, *Chief Commissioner.*

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

W. J. PATTERSON, *Commissioner.*

It is ordered that the rules covering the preparation of accounts and rates of rental of railway-owned equipment to apply to joint projects undertaken under Order of the Board by railway companies within the legislative authority of the Dominion of Canada be, and they are hereby, approved and adopted, namely;

A joint project shall be considered to mean a project to the cost of which the railway and/or Board contributes.

The preparation of accounts shall be in general, as herein provided, or as may be determined from time to time by the Board.

LABOUR

(a) *Labour Cost*

Labour cost shall include a proportion of wages allowed on statutory holidays to employees entitled to such, and a proportion of wages allowed for vacation pay for all employees under the terms of wage agreements, and shall be calculated as follows:

- I. To the wages of foremen entitled to wages for statutory holidays shall be added one per cent.
- II. To the wages of employees entitled to three weeks vacation with pay shall be added six per cent.
- III. To the wages of all other employees entitled to vacation with pay shall be added four per cent.

(b) *Surcharges*

To all items of labour cost there shall be added surcharges to cover the following:

	<i>Transportation Accounts</i>	<i>Construction and Maintenance Accounts</i>
Supervision and accounting.....	5%	—
Supervision, Accounting and use of tools	—	10%
Pensions.....	3½%	3½%
Workmen's Compensation.....	2%	2%
Unemployment Insurance.....	1%	1%

The surcharges covering supervision, accounting and use of small tools, are in lieu of the cost of all salary and expense of any general or supervising officer, or other person regularly employed, having supervision over any railway operation or maintenance, including all overhead office expense, cost of draughting-room, accessories, etc., all stenographic or clerical forces employed in head, divisional, or district offices, handling matters pertaining to the work, all charges for minor equipment and small tools.

(c) *Special Engineering Services*

A direct charge shall be allowed for engineering services when it is necessary for their employment continuously and exclusively on the particular work, plus the surcharges herein provided under "construction and maintenance."

Under this item it will be proper to charge the wages of office engineers and draughtsmen assigned to the work in the preparation of plans after the issue of the Board's Order, plus the surcharges herein provided under "construction and maintenance". "Assigned" means continuous service for one day, or more, solely in connection with the particular project, but does not permit accumulation of short intermittent periods to equal one day.

WORKMEN'S COMPENSATION

No award in payment of compensation claims for injury or death will be allowed.

TRANSPORTATION OF MEN

No transportation charges for railway labour or employees will be allowed, except extraordinary transportation, which may be considered by the Board in each special case.

MATERIAL

To the invoice price (including foreign freight, customs duty, sales tax and exchange), of all items of materials and supplies used, add 15 per cent to cover supervision, store expense, inspection, accounting, handling and transportation over the billing carrier's line to point of use. When material is hauled over billing carrier's line in excess of 250 miles, a further allowance of 10 mills per net ton mile for such excess mileage shall be included, in addition to the 15 per cent allowance. Proper credit shall be allowed for salvage materials, less 15 per cent to cover expense of supervision, inspection, store expense, accounting, handling and transportation.

CONTRACT WORK

To the contract price of work done by an outside contractor there may be added a premium to cover supervision, accounting and inspection, of 3 per cent on amounts up to \$50,000.00; of 2 per cent on the excess of \$50,000.00 up to \$100,000.00; and of 1 per cent on the excess over \$100,000.00.

LAND PURCHASES AND DAMAGES

To the purchase price of land and property damages, registration fees, special taxes, fees paid into court, and commissions paid for purchase settlement, there may be added a premium to cover supervision, accounting, etc., of 3 per cent, on amounts up to \$50,000.00; of 2 per cent on the excess of \$50,000.00 up to \$100,000.00; and of 1 per cent on the excess over \$100,000.00.

RENTAL OF RAILWAY-OWNED EQUIPMENT

Rental of railway-owned equipment, when used in joint project work, shall be in accordance with Schedule "A", Circular No. 103, of the Railway Association of Canada. No percentage allowance shall be added to equipment rental.

Schedule "A", indicating description of equipment and rates per day, is attached hereto. The rates in the foregoing Schedule are for each 24-hour period, including Sundays and holidays or fraction thereof, and do not include wages and expenses of employees in charge of equipment, supplies, fuel, or cost of transporting equipment, which shall be charged in addition to rental.

WORK TRAIN

Flat rate, including rental of one locomotive (all sizes and types), caboose, all repairs, fuel and supplies, engine and train or switch crew wages and supplies, all engine-house expense—\$18.50 per hour, or fraction thereof—(for additional equipment rental, see Schedule attached), with the addition of a work train service trackage charge of \$1.50 per train mile; minimum trackage charge—\$10.00.

TRANSPORTATION OF EQUIPMENT

Charges at the following rates for transportation of cars, cars loaded with roadway machines, and for other miscellaneous equipment, shall be made from home station or previous job to point of use, also for return movement, if moved to home station or point to be stored. (If moved to another job, no charge shall be made for return movement):

In Revenue Trains

- (a) Cars and work equipment loaded on cars—6c. per unit per mile. Minimum—\$6.00 per unit.
- (b) Other work equipment transported on own wheels—10c. per unit per mile. Minimum—\$10.00 per unit.

In Work Trains—Work train rate as provided.

And it is further ordered that General Orders Nos. 539 and 557 be, and they are hereby, rescinded.

M. B. ARCHIBALD,
Chief Commissioner,

The Board of Transport Commissioners for Canada.

SCHEDULE "A"

Description of Equipment	Capacity	Rate Per Day
REVENUE EQUIPMENT		
All wood cars, and wood cars with metal draft arms will be charged for at the current per diem rates.		
<i>Refrigerator Cars</i>		
All Steel.....	All capacities.....	\$ 6.30
Steel Centre Sills, S.U.F. Also S.F.....	All capacities.....	3.20
<i>Other Freight Cars</i>		
Steel, Steel Centre Sills, S.U.F. also S.F.		
Automobile, ballast, box, coal, flat, gondola, ore, sand, stone, tank, etc.....	All capacities.....	1.90
<i>Cabooses</i>		
All Types.....		1.50
WORK EQUIPMENT (Mounted on M.C.B. trucks or floating)		
Ballast Trimmer.....		4.90
Cars Air Dump.....	30 cu. yds. and over....	4.90
Cars Air Dump.....	20 to 29 cu. yds.....	4.10
Cars Air Dump.....	Less than 20 cu. yds....	3.10
Cars, Passenger converted to Boarding or Kitchen.....		3.40
Freight converted to Bunk, Kitchen, Dinning, Rail, Ice, Tool Cabin, Idler, Cinder, etc.....		1.80
Dynamometer.....		78.70
Generator.....	10 cars.....	9.70
Rule Instruction.....		7.90
Scale Test.....		9.20
Water Transport (Incl. converted Tender).....		2.80
Cranes.....	Less than 10 tons.....	7.00
".....	10 to 29 tons.....	14.00
".....	30 to 99 tons.....	22.00
".....	100 to 199 tons.....	33.00
".....	200 tons.....	55.00
".....	250 tons.....	93.00
Crane Pile Driver.....		23.40
Concrete Mixer.....		5.60
Ditcher.....		13.90
Fire Fighting Tank.....		8.10
Plunger and Scraper.....		6.10
Lidgerwood, Rapid Unloader.....	41 to 60 tons.....	11.90
	Less than 41 tons.....	9.80
Centre Ballast Plow, extra.....		2.70
Side Ballast Plow, extra.....		1.80
Pile Driver, Self-propelled.....		34.80
Non-self-propelled.....		13.80
Floating.....		3.40
Rail Loader.....		4.00
Snow Loader.....		76.80
Snow Melter.....		57.20
Snow plow, Rotary.....		82.40
S. or S.U.F. with wings and drop points.....		16.60
Wood with wings and drop points.....		14.40
Others.....		5.70
Spreaders with attachments, S. or S.U.F. with ditch line contour.....		\$17.00
S. or S.U.F. minus ditch line contour.....		12.90
Wood.....		5.60
Steam Shovels.....	3 cu. yds. and over....	31.90
Steam Shovels.....	Less than 3 cu. yds....	19.10
Tracklayer.....		10.60
MISCELLANEOUS EQUIPMENT		
Auto Trucks.....	1 ton or less.....	3.60
Auto Trucks.....	Over 1-2½.....	5.30
Auto Trucks.....	Over 2½.....	8.00
Car Loader "Clark".....		4.10
Crain Truck, Gasoline Driven.....	.5 ton.....	6.50
Battery Electric Driven.....	.5 ton.....	8.10
Tractor, Gasoline Driven (Power Swing Boom).....		6.90
Floor Sander.....		1.30
Tractor, Gasoline or Batt. Driven.....		3.50

<i>Description of Equipment</i>	<i>Capacity</i>	<i>Rate Per Day</i>
ROADWAY MACHINES		
Air Equipment.....	160-200 cu ft.....	7.30
Compressor.....	Less than 160 cu. ft.....	5.00
Cement Gun Attachment.....		3.20
Other Attachments, per unit.....		1.10
Ballaster, complete with tamping bars.....		21.40
Ballast Discer.....		3.50
Ballast Scarifier.....		33.50
Bonder, Rail.....		.60
Car, Track Motor.....		.90
Trailer Dump.....		.50
Combination Crane, Shovel and Drag Line, Crawler Mounted		
{ Dipper and Shovel.....	$\frac{3}{4}$ cu. yds. and less	18.60
{ Clam and Drag Line Bucket.....	$\frac{3}{4}$ cu. yds. and less	
{ Dipper and Shovel.....	Over $\frac{3}{4}$ -1 $\frac{1}{4}$ cu. yd.	24.90
{ Clam and Drag Line Bucket.....	Over $\frac{3}{4}$ -1 cu. yd.	
{ Dipper and Shovel.....	Over 1 $\frac{1}{4}$ -2 cu. yd.	33.60
{ Clam and Drag Line Bucket.....	Over 1-1 $\frac{3}{4}$ cu. yd.	
Concrete Mixer.....	$\frac{1}{2}$ cu. yd. and less.....	1.90
	Over $\frac{1}{2}$ - $\frac{3}{4}$ cu. yd.....	4.30
	Over $\frac{3}{4}$ cu. yd.....	6.00
Concrete Placer.....		8.90
Cranes and Hoists (Power Driven).....	3000-5000 lbs.....	6.70
With magnet.....	5000 lbs.....	9.30
Burro.....		28.00
Koehring Cruiser 36" Magnet 15,000 lbs. 12' Radius.....		16.70
Telescopic Swing Boom equipped for track or highway 19 to 31 ft.		
Equipped for track or highway.....		13.20
Tractor.....	12 ton.....	11.80
Other, including hand-operated.....		2.70
Generator, portable electric.....		2.40
Grinder, Rail, Gasoline Driven.....		2.50
Jack, Geared and Ball Bearing.....	.50 ton and over.....	.90
Power Track.....		3.00
Paint Sprayer (2 or more guns).....		1.90
Pile Driver—Skid Mounted.....		6.50
Post Hole Digger, Diesel.....		15.30
Power Wrench (Bolt and Nut Tightener).....		3.80
Pumps, Gas or Steam Driven.....		5.60
Portable.....		1.10
Rail Layer, Hand Operated.....		1.20
Power Operated.....		7.00
Rail Slotter, Hand Operated.....		.60
Saw Rail, Gas Powered.....		.70
Scraper, for Caterpillar Tractors (See Tractor below).....	10 cu. yd.....	5.10
Skilsaw, Electric.....	12".....	.50
Snow Blower, Hydraulic Wings and Wheels.....		50.70
Snow Loader.....		19.70
Spike Driver, Gasoline Driven.....		4.60
Spike Puller, Gasoline Driven.....		2.80
Tie Adzer.....		3.50
Tie Tamper, Gasoline or Batt. Driven.....		1.10
4-Tool Hi-Speed.....		3.70
Tractor, Caterpillar with Hydraulic Bulldozer (See Scraper above).....	Belt 50 h.p. and over... Belt less than 50 h.p....	13.00 10.00
Weed Burner.....		3.30
Weed Mower.....		4.70
Welder, Single Arc Electric, Gasoline Driven.....		5.90
Single Arc, Electric, including Grinder Car, Gasoline Driven.....		7.40
Well Borer.....		2.50

Abbreviations used:

S.—Steel.

S.F.—Steel Frame.

S.U.F.—Steel Underframe.

GENERAL ORDER No. 755

In the matter of regulations respecting the testing and repair of highway crossing protective devices:

File No. 15382.

SATURDAY, the 19th day of May, A.D. 1951.

HON. MR. JUSTICE M. B. ARCHIBALD, *Chief Commissioner.*

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

W. J. PATTERSON, *Commissioner.*

It is ordered that every highway crossing signal and gate upon the line of any railway company subject to the legislative authority of the Parliament of Canada, installed for the purpose of protection, shall be efficiently maintained by the railway company upon whose line the protection is installed, and shall be tested at frequent intervals. The interval between such tests shall not exceed a period of twenty-four hours, except on week-ends and legal holidays, when the interval may be extended up to seventy-two hours, and the method of test shall be such as will indicate whether or not the signal or gate is in good working order. If the highway crossing signal or gate fails to operate, or operates improperly, notice of such non-repair shall be given at once to the station agent nearest to such highway crossing, signal or gate, or to the train dispatcher, whose duty it shall be to report the matter at once to the Department having charge of the operation and repair of such highway crossing signals. As soon as possible after sending the notice of such non-repair, a flagman shall be placed at such crossing in order that users of the said crossing may be adequately protected until the highway crossing signal or gate is repaired. If this protection covers more than four tracks, two flagmen must be used.

Failure to place a watchman as required by these regulations will subject the defaulter to a fine of \$50.00, payment of which may be ordered by the Board upon proof of the offense.

And it is further ordered that General Orders Nos. 729 and 731 be, and they are hereby, rescinded; and that General Order No. 607 be, and it is hereby, amended by striking out paragraph numbered 9 thereof; and that General Order No. 675 be, and it is hereby, amended by striking out paragraph numbered 9 thereof.

M. B. ARCHIBALD,
Chief Commissioner.

GENERAL ORDER No. 756

In the matter of proposed amendments to the Regulations for the Transportation by Express of Acids, Compressed Gases, Inflammables, Oxidizing Substances, Explosives, etc., and Specifications for Shipping Containers, approved by General Order No. 678, dated the 3rd day of December, 1945:

File No. 1717-12.

FRIDAY, the 11th day of May, A.D. 1951.

Hon. Mr. Justice M. B. ARCHIBALD, *Chief Commissioner.*

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

W. J. PATTERSON, *Commissioner.*

Upon reading the submissions filed—

It is ordered

1. That the said Regulations for the Transportation by Express of Acids, Compressed Gases, Inflammables, Oxidizing Substances, Explosives, etc., and Specifications for Shipping Containers to be observed by shippers, and by express companies subject to the jurisdiction of the Board, be, and they are hereby, amended in accordance with the amendments in Supplement No. 3 to C.T.C. No. E.T. 3469, marked "D", on file with the Board under file No. 1717-12, and certified by the Secretary of the Board.

2. That General Orders No. 703, dated October 28, 1947, No. 712, dated April 6, 1948, No. 720, dated November 29, 1948, No. 747, dated November 8, 1950, and No. 749 dated February 10, 1951, be, and they are hereby, rescinded.

M. B. ARCHIBALD,
Chief Commissioner.

GENERAL ORDER No. 757

In the matter of Board's Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight and Specifications for Shipping Containers:

File No. 1717-60.

FRIDAY, the 11th day of May, A.D. 1951.

Hon. Mr. JUSTICE M. B. ARCHIBALD, *Chief Commissioner.*

HUGH WARDROPE, *Asst. Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

W. J. PATTERSON, *Commissioner.*

Upon reading the submissions filed—

It is ordered that the Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight and Specifications for Shipping Containers, as amended by Supplement No. 3, approved by General Order No. 746, dated October 6, 1950, be, and they are hereby, amended by adding the following sentence immediately after the end of Section 61(c) thereof:

“This does not apply to Polar Monobel No. 7 or Polar Monobel X (Eq. S.)”.

M. B. ARCHIBALD,
Chief Commissioner.

GENERAL ORDER No. 758

In the matter of the Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight, and Specifications for Shipping Containers, approved by General Order No. 722, dated January 21, 1949:

File No. 1717-88-58.

THURSDAY, the 31st day of May, A.D., 1951.

HUGH WARDROPE, *Asst. Chief Commissioner.*

W. J. PATTERSON, *Commissioner.*

Upon reading the submissions filed—

It is ordered that the Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight, and Specifications for Shipping Containers, approved by General Order, No. 722, dated January 21, 1949, be, and they are hereby, amended by changing the numbering of Section 211 A (b) to read 211 A (1), and by adding the following paragraphs immediately following paragraph 211 A (1) of the said Regulations:

"211 A (b) Titanium metal powder, dry, must be packed in specification containers as follows:

- (1) Spec. 15A or 15B—Wooden boxes with inside metal containers, tightly and securely closed by push-in covers, held in place by soldering at least four joints, or in screw-cap metal cans. Inside containers must not exceed 10 pounds net each. Inside containers must be cushioned by incombustible material such as rock wool or asbestos wool. Gross weight of outside package must not exceed 75 pounds each.
- (2) Spec. 17H or 37D—Metal barrels or drums (single-trip) with inside metal drum of not less than 20-gauge metal and with closure secured by positive means. The inside container shall be completely surrounded by not less than one inch of incombustible cushioning material."

HUGH WARDROPE,
Assistant Chief Commissioner.

GENERAL ORDER No. 759

In the matter of instruction of employees of railway companies in regard to railway operation and maintenance:

And in the matter of examination books used by railway companies for the examination of their employees in such matters:

File No. 43757-1.

SATURDAY, the 2nd day of June, A.D. 1951.

HUGH WARDROPE, *Asst. Chief Commissioner.*

W. J. PATTERSON, *Commissioner.*

In pursuance of the powers conferred upon the Board by Sections 33, 34 and 287 of the Railway Act and of all other powers possessed by it in that behalf:

It is ordered

1. That no person shall, unless duly authorized so to do by a railway company subject to the Board's jurisdiction, publish, distribute or sell any book, document or paper giving or purporting to give the answers to questions contained in any examination book used by the said company for the examination of its employees in matters of operation or maintenance of the railway;

2. Any person violating the provisions of this Order shall be liable to a penalty of twenty dollars for each and every such violation.

HUGH WARDROPE,
Assistant Chief Commissioner.

GENERAL ORDER No. 760

In the matter of General Order No. 473, dated May 22, 1929:

File No. 16513.

TUESDAY, the 31st day of July, A.D. 1951.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

It is ordered that the Rules and Instructions for the Inspection and Testing of Locomotive Boilers and their Appurtenances prescribed by General Order No. 473, dated May 22, 1929, be, and they are hereby, amended by striking out Rule 37 thereof and substituting therefor the following:

"Injectors and Feed Water Pumps

- (37) All steam locomotives covered by these rules shall be equipped with two separate boiler feed water devices; each device must be of sufficient capacity to supply the boiler under all operating conditions.

Injectors, feed water pumps and all feed water appliances, including boiler checks, delivery pipes, feed water pipes, gauges, squirt hose and fittings, tank hose and tank valves must be maintained in good operating condition, free from scale, foreign substances or leaks that would obstruct the flow of water.

Before being despatched from terminals where locomotives are maintained, or from stations or terminals where the engine crews of through trains are changed, injectors and feed water pumps must be tested separately and it must be known that each appliance is in a proper condition to supply the boiler requirements."

A. SYLVESTRE,
Deputy Chief Commissioner.

GENERAL ORDER No. 761

In the matter of the Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight and Specifications for Shipping Containers, approved by General Order No. 722:

File No. 1717-127.

MONDAY, the 20th day of August, A.D. 1951.

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Upon reading the submissions filed—

It is ordered that the Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight and Specifications for shipping containers approved by General Order No. 722 be, and they are hereby, amended by striking out Section 22 (a) (1) thereof and substituting the following section therefor:

“22 (a) (1) Because of the present emergency and until further Order of the Board, containers may be approved and authorized for emergency or experimental shipments by special permit issued by the Director of Operation, Board of Transport Commissioners. Each container shall be plainly marked with an assigned Special Permit Number and all bills of lading, shipping orders or shipping papers in lieu thereof shall make reference thereto.”

FRANK M. MACPHERSON,
Commissioner.

GENERAL ORDER No. 762

In the matter of the Regulations for the Transportation by Express of Acids, Compressed Gases, Inflammables, Oxidizing Substances, Explosives, etc., and Specifications for Shipping Containers, approved by General Order No. 678:

File No. 1717-127

MONDAY, the 20th day of August, A.D. 1951.

F. M. MacPHERSON, *Commissioner*.

H. B. CHASE, C.B.E., *Commissioner*.

Upon reading the submissions filed—

It is ordered that the Regulations for Transportation by Express of Acids, Compressed Gases, Inflammables, Oxidizing Substances, Explosives, etc., and Specifications for Shipping Containers approved by General Order No. 678 be, and they are hereby, amended by inserting the following paragraph immediately after Section 11 (a) thereof:

“11 (a) (1) Because of the present emergency and until further Order of the Board, containers may be approved and authorized for emergency or experimental shipments by special permit issued by the Director of Operation, Board of Transport Commissioners. Each container shall be plainly marked with an assigned Special Permit Number and all bills of lading, shipping orders or shipping papers in lieu thereof shall make reference thereto.”

FRANK M. MacPHERSON,
Commissioner.

GENERAL ORDER No. 763

In the matter of General Order No. 501, dated July 19, 1932:

File No. 30245·1

TUESDAY, the 28th day of August, A.D. 1951.

HUGH WARDROPE, *Asst. Chief Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

It is ordered that General Order No. 501, dated the 19th day of July 1932, be, and it is hereby, amended by adding to paragraph numbered 12 thereof the following sub-paragraph:

“(2) At crossings with three or more tracks, highway crossing signs shall be erected at each approach, preferably on the right hand side of the highway, except that in the case of crossings with three or more tracks in existence on October 15th, 1951, the signs shall be erected not later than the first day of December, 1952.”

HUGH WARDROPE,
Assistant Chief Commissioner.

GENERAL ORDER No. 764

In the matter of General Order No. 737, dated January 31, 1950:

File No. 21351-1

TUESDAY, the 4th day of September, A.D. 1951.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Upon reading the submissions filed—

It is ordered that General Order No. 737, dated January 31, 1950, be, and it is hereby, amended by striking out part (a) of Section 2 of the said Order and substituting therefor the following:

“FOOTBOARDS

(a) Footboards may be constructed in two (2) sections provided that the majority of horizontal space on each side of the coupler is protected by the footboards.

Footboards shall be securely fastened to two (2) one inch (1'') by four inch (4'') metal brackets, *provided* footboard is not cut or notched at any point. If footboard is cut or notched or in two (2) sections not less than four (4) one inch (1'') by three inch (3'') metal brackets must be used, two (2) located on each side of the coupler. Each bracket must be secured to the buffer beam, end sill, frame or plate forming the end structure of the locomotive or tender by not less than two (2) seven-eighths inch (7/8'') bolts.”

HUGH WARDROPE,
Assistant Chief Commissioner.

GENERAL ORDER No. 765

In the matter of traffic agreements between The Bell Telephone Company of Canada and connecting companies and corporations:

Case No. 538.

MONDAY, the 1st day of October, A.D. 1951.

HUGH WARDROPE, *Assistant Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

Upon hearing the matter at a sittings of the Board held in the Court Room, Union Station Building, Ottawa, Ontario, on Monday, Tuesday, Wednesday and Thursday, the 19th, 20th, 21st and 22nd days of March, 1951, in the presence of Counsel for The Bell Telephone Company of Canada, the Quebec Independent Telephone Association, the Canadian Independent Telephone Association and the Nipissing Central Railway Company and the Ontario Northland Transportation Commission—

It is ordered that General Orders Nos. 735 and 739 be, and they are hereby, rescinded.

HUGH WARDROPE,
Assistant Chief Commissioner.

GENERAL ORDER No. 766

In the matter of General Order No. 558, dated October 6, 1936:

Case No. 538

WEDNESDAY, the 14th day of November, A.D. 1951.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

It is ordered that General Order No. 558, dated October 6, 1936, be, and it is hereby, rescinded.

HUGH WARDROPE,
Assistant Chief Commissioner.

GENERAL ORDER No. 767

In the matter of the Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight and Specifications for Shipping Containers, approved by General Order No. 722:

File No. 1717-44

MONDAY, the 3rd day of December, A.D. 1951.

Hon. Mr. Justice JOHN D. KEARNEY, *Chief Commissioner.*

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Upon reading the submissions filed—

It is ordered that the Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight and Specifications for Shipping Containers as amended by supplement No. 3, approved by General Order No. 746, dated October 6, 1950, be, and they are hereby, amended by striking out section 60 (b) (1) thereof and substituting the following therefor:

“(b) (1) Specification 14, 15A or 16A. “Wooden boxes with inside containers which must be fibre drums, cloth or paper bags of capacity not exceeding 25 pounds net weight, provided the completed shipping package shall be capable of standing a drop of 4 feet without rupture of inner or outer containers. The completed package must not exceed 50 pounds, net weight, of black powder.”

JOHN D. KEARNEY,
Chief Commissioner.

GENERAL ORDER No. 768

In the matter of General Order No. 331, dated March 5, 1921:

File No. 29890-5

FRIDAY, the 28th day of December, A.D. 1951.

Hon. Mr. Justice JOHN D. KEARNEY, *Chief Commissioner.*

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

It is ordered that General Order No. 331, dated March 5, 1921, be, and it is hereby, amended by striking out the words "should the governing date fall on a Sunday or Canadian or United States legal holiday" in paragraph numbered 7 of the said Order and substitute therefor the words "should the governing date fall on a Saturday, Sunday or Canadian or United States legal holiday".

JOHN D. KEARNEY,
Chief Commissioner.

GENERAL ORDER No. 769

In the matter of General Order No. 326, dated the 14th day of January, 1921:

File No. 29674·1 & 2

FRIDAY, the 28th day of December, A.D. 1951.

Hon. Mr. Justice JOHN D. KEARNEY, *Chief Commissioner.*

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

It is ordered that General Order No. 326, dated the 14th day of January, 1921, be, and it is hereby, amended by striking out the words "Should the governing date fall on a Sunday or Canadian or United States legal holiday", in the Note following paragraph numbered 3 of the said Order and substitute therefor the words "Should the governing date fall on a Saturday, Sunday or Canadian or United States legal holiday".

JOHN D. KEARNEY,
Chief Commissioner.

GENERAL ORDER No. 770

In the matter of General Order No. 494, dated October 27, 1931:

File No. 29674.53

FRIDAY, the 28th day of December, A.D. 1951.

Hon. Mr. Justice JOHN D. KEARNEY, *Chief Commissioner.*

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

It is ordered that General Order No. 494, dated October 27, 1931, be, and it is hereby, amended by striking out the words "Should the governing date fall on Sunday or Canadian or United States legal holiday", in paragraph numbered 5 of the said Order and substitute therefor the words "Should the governing date fall on Saturday, Sunday or Canadian or United States legal holiday".

JOHN D. KEARNEY,
Chief Commissioner.

GENERAL ORDER No. 771

In the matter of General Order No. 527, dated October 25, 1934:

File No. 29674-68

FRIDAY, the 28th day of December, A.D. 1951.

Hon. Mr. Justice JOHN D. KEARNEY, *Chief Commissioner.*

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

It is ordered that General Order No. 527, dated October 25, 1934, be, and it is hereby, amended by striking out the words "Should the governing date fall on a Sunday or Canadian or United States legal holiday", in paragraph (a) of Rule 9 of Section III of the said Order and substitute therefor the words "Should the governing date fall on a Saturday, Sunday or Canadian or United States legal holiday".

JONH D. KEARNEY,
Chief Commissioner.

GENERAL ORDER No. 772

In the matter of Standard Regulations for Wire Crossings and Proximities:

Case No. 4704

FRIDAY, the 28th day of December, A.D. 1951.

Hon. Mr. Justice JOHN D. KEARNEY, *Chief Commissioner.*

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, K.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

It is ordered

1. That the regulations hereinafter set forth under the heading "Standard Regulations for Wire Crossings and Proximities" be, and they are hereby, adopted and approved in respect to the construction and maintenance of lines, wires or other conductors for the transmission of electrical energy, or for communication purposes, for which leave of the Board is required by virtue of section 372, of the Railway Act or which have been or are to be constructed or maintained by consent and in accordance with general orders, regulations, plans or specifications adopted or approved by the Board for such purposes.

2. That any reference in an order to "Standard Regulations for Wire Crossings and Proximities" shall be deemed to be a reference to the regulations hereby adopted and approved.

3. That the following general orders be, and they are hereby, rescinded:

General Order No. 231, dated May 6, 1918.

" " " 291, " April 7, 1920.

" " " 490, " February 20, 1931.

" " " 596, " June 7, 1940.

Standard Regulations for Wire Crossings and Proximities

1. These regulations apply except where the Board directs or permits a departure therefrom in respect to any particular line.

2. In these regulations,

(a) "across" or "cross" means "crossing under or over".

(b) "communication line" means a line for telegraphic, telephonic, signalling or other intelligence purposes.

(c) "construction" includes "extensive modification" and "extensive reconstruction".

(d) "line" means and includes a communication line and a supply line, including the wires, cables, conductors and their supporting or containing structures and appliances, if any, forming part thereof or used in connection therewith.

(e) "maintenance" includes "repairing".

(f) "near" means in such proximity as may give rise to the possibility of physical, inductive or electrolytic interference.

(g) "supply line" means a line used primarily for the transmission of a supply of electrical energy for other than telegraphic, telephonic, signalling or other intelligence purposes.

3. (1) The party which has leave of the Board or consent, to carry out construction or maintenance of a line (hereinafter called the "line party") shall do so at its own expense.

(2) The construction and maintenance shall be carried out in accordance with the applicable rules, requirements and specifications issued from time to time by the Canadian Standards Association and approved by the Board. Upon such approval by the Board such rules, requirements and specifications shall automatically, without further order, be adopted and incorporated in these regulations. In the event of contradiction between the provisions of the Railway Act and the said rules, requirements and specifications, the provisions of the Railway Act shall prevail.

(3) The construction and maintenance shall also be carried out, and the line operated, in such a manner as not unduly to interfere with or obstruct the operation of any railway or line crossed or neared or to endanger the safety of the railway or line or of persons using or working on the railway or line.

(4) Such additional precautions shall be taken as the Director of Engineering of the Board may require.

4. (1) Before constructing any line which, when completed, will cross a railway, or will cross or be located near a line, which railway or line is within the legislative authority of the Parliament of Canada, the party proposing to do so shall apply to the owner or operator of such last-mentioned railway or line for its written consent to the construction and maintenance thereof, and if so required by the other party, shall send to that other party detailed plans of the construction. If such consent cannot be obtained or cannot be obtained otherwise than subject to terms and conditions not acceptable to such party, then such party may apply to the Board for leave to construct and maintain such line.

(2) The party applying to the Board for such leave shall file with the Secretary of the Board three copies of a statement setting forth all facts relevant to the application and three copies of a plan, profile and cross section combined of the proposed works and of the part of the railway or line to be crossed or neared, showing the location, and shall give notice of the application, with a copy of the statement and of the plan, profile and cross section combined, to the other party.

5. (1) Before commencing any work of construction or maintenance of a line, except minor changes or minor repairs, the line party shall give to an officer of the other party owning, operating or having control over the railway or line to be crossed or neared, if such railway or last-mentioned line is within the legislative authority of the Parliament of Canada, at least 72 hours notice thereof in writing; provided, however, that in an emergency the work may be commenced without the giving of the notice, but in such event notice shall be given by telegram as soon as is reasonably possible.

(2) The other party may appoint an inspector under whose supervision the work shall be carried out, and whose wages and expenses shall be paid by the line party upon receipt from the other party of a statement showing in reasonable detail the particulars of such wages and expenses; but if the line party is a municipality or the agent of a municipality, and the line on which the work is to be done is on a highway within the jurisdiction of the municipality the said wages shall be paid by the other party.

6. (1) Notwithstanding the provisions of paragraph 3 of these regulations in every case in which a railway or line within the legislative authority of the Parliament of Canada is to be constructed along, across or near any line, the construction of the latter line shall be made to conform to such of the aforesaid rules, requirements and specifications issued from time to time by the Canadian

Standards Association and approved by the Board as are applicable thereto, and to avoid interference with the service of the railway or line. The owner, operator or party having control over the existing line shall, after receiving whatever information may be necessary to determine the changes which are so required, send plans of the changes to the party proposing to construct the railway or line, and upon receipt of the party's written consent shall make such changes. Any changes made shall be at the cost and expense of the party constructing the railway or line.

(2) Where a railway or line is constructed across or near an existing line, such existing line shall be dismantled unless it has been constructed and is thereafter maintained in accordance with such of the rules, requirements and specifications issued from time to time by the Canadian Standards Association and approved by the Board as are applicable thereto.

7. The line party shall at all times wholly indemnify the other party owning, operating or having control over the railway across or along which, or the other line across or near which, the line party's line is constructed, from and against all loss, cost, damage, injury and expense to which that other party may be put by reason of any damage or injury to persons or property caused by the construction, maintenance or operation of the line party's line or any work herein provided for by the terms and provisions of these regulations, as well as against any damage or injury resulting from the imprudence, neglect or want of skill of the employees or agents of the line party in connection with the construction, maintenance or operation of the line party's line, unless the cause of such loss, cost, damage, injury or expense can be traced elsewhere.

8. Any dispute between the parties as to the manner in which a line is to be constructed or maintained may be referred by either of them to the Director of Engineering of the Board, whose decision shall be subject to appeal to the Board.

9. Two or more lines shall not be constructed in the same or approximately the same vertical plane, but joint use of poles as provided for by General Order No. 560 or any other order of the Board is permitted.

10. The line party shall, as soon as possible and immediately after its Head Office has received information of the occurrence upon railway lands along or across which its line is constructed of any accident involving its line attended with personal injury to any person using the railway, or to any employee of the railway company, or which causes loss or damage to the railway company, give notice thereof by telegraph, with full particulars, to the Board.

11. Nothing in these regulations shall prejudice or detract from the right of a company owning, operating or using a railway to adopt at any time the use of electric or other motive power, and to construct and maintain along or across its right of way such lines as may be necessary or proper for such purpose. The cost of any removal, change in location or construction of any other line rendered necessary by any of the matters referred to in this paragraph shall be borne by such of the parties and in such proportion as the Board upon the application of any party interested, may determine.

12. Nothing herein shall deprive any party of any remedy or right of action which such party would otherwise have against any other party for loss or damage resulting from the construction, maintenance or operation of any railway or line.

JOHN D. KEARNEY,
Chief Commissioner.

GENERAL ORDER No. 773

In the matter of rules, requirements and specifications in regard to construction of supply lines and trolley lines crossing railways, construction of communication lines crossing railways, and supply lines crossing communication lines:

Case No. 4704

FRIDAY, the 28th day of December, A.D. 1951.

Hon. Mr. Justice JOHN D. KEARNEY, *Chief Commissioner.*

HUGH WARDROPE, *Asst. Chief Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

It is ordered

1. That Canadian Standards Association C-22·3 Number 1(A), dated June 1940, containing rules, requirements and specifications for the construction of supply lines and trolley lines crossing railways; Canadian Standards Association C-22·3 Number 1(B) dated June 1940, containing rules, requirements and specifications for the construction of communication lines crossing railways; and Canadian Standards Association C-22·3 Number 1(C), dated April 1947, containing rules, requirements and specifications for the construction of supply lines crossing communication lines; on file with the Board under Case No. 4704, be, and they are hereby, approved.

2. That in the event of contradiction between the provisions of the Railway Act and the said rules, requirements and specifications, the provisions of the Railway Act shall prevail.

3. That General Order No. 706 be, and it is hereby, rescinded.

JOHN D. KEARNEY,
Chief Commissioner.

OTTAWA, February 21st, 1951.

CIRCULAR No. 266

In reference to maps and plans, profiles and books of reference under the Pipe Lines Act—File No. 45371-7.

ROUTE MAP

1. The route map showing the general location of a proposed oil or gas pipe line to be filed with the Board under the provisions of Section 12 of the Pipe Lines Act shall be drawn on tracing linen on a scale of not more than eight miles to the inch, and the date of the map shall be shown thereon. One copy of the route map on tracing linen shall be filed with the Board, and such additional copies shall be supplied as may be required by the Applicant Company to be certified by the Board's Secretary as copies of the map filed with the Board.

2. The route map shall show the general location of the proposed pipe line, the termini, and all cities, towns, villages, railways and navigable waters (showing names thereof), through, under, or across which the pipe line is to pass and such as may be within a radius of thirty miles of the proposed pipe line, and generally the physical features of the country through which the pipe line is to be constructed, and shall give such further information as the Board may require.

LOCATION PLAN

3. The Company shall not begin the construction of a section or a part of a pipe line until the plan, profile and book of reference of the section or part of the located line have been approved by the Board: *See* Section 11 of the Pipe Lines Act. The plan, profile and book of reference shall be on tracing linen and drawn to the following scales:

Plan,	1 inch.....	1,000 feet.
Profile,	1 inch.....	1,000 feet (horizontal)
Profile,	1 inch.....	50 feet (vertical)

Plans showing the located line may be filed with the Board covering sections or parts of the proposed pipe line.

It is desirable that plans, profiles and books of reference should show sections not in excess of approximately fifty miles.

4. The following sets of plans shall be filed with the Board:

- (a) One set of plan, profile, book of reference, on tracing linen for sanction and deposit with the Board.
- (b) Further sets to be supplied by the pipe line company as may be required for their purpose, which copies will be returned to the pipe line company duly certified as copies of the approved plan, profile, and book of reference.

5. Should the located line deviate more than five miles from any one point as shown on the route map approved by the Board, the Company shall file a revised route map of the deviation for the Board's approval.

By Order of the Board,

P. F. BAILLARGEON,

Secretary.

October 18th, 1951.

CIRCULAR No. 267

Telephone Exchange Rate Grouping File No. 46638

Telephone companies subject to the jurisdiction of the Board, providing telephone exchange service at rates fixed according to total telephone rate groups, shall, except as otherwise stated herein, file with the Board's Secretary on April 30th and October 31st of each year, a report as of the preceding last day of February and August respectively, in the form set out in Appendix "A" hereto.

Such report shall be submitted for each exchange whose total telephones in service have increased or decreased by more than five (5) per cent beyond the limits of the rate group to which the exchange is currently assigned during the six months preceding the date of the report, and such condition has continued to the date of the report.

Where the total telephones of two or more exchanges are combined for the purpose of determining the group rate, a report shall be made for each exchange and for the combined exchanges. Reports are not required for exchanges accorded Extended Area Service (Metropolitan area service) at rates applicable to the urban exchange to which connected.

A copy of the report shall be delivered concurrently to the municipal or other governing body of each city, town, or other similar area served by the exchange. Such body shall be entitled to file any relevant submissions with the Board not later than 30 days from the date the report is made to the Board, and shall concurrently deliver a copy of such submissions to the telephone company at its head office. Answers to such submissions may be made not later than 40 days from the date the report is made to the Board and a copy of the answer is to be delivered concurrently to the person making the submissions.

The board will give consideration to the report and the submissions, and will issue such order or direction as it may deem appropriate.

By Order of the Board,

P. F. BAILLARGEON,

Secretary.

APPENDIX "A"

CIRCULAR No.

.....Date filed.....
(Name of Company)

Report No.

Secretary,

THE BOARD OF TRANSPORT COMMISSIONERS FOR CANADA, OTTAWA.

In re: Circular No. Telephone Exchange rate grouping.

Report is hereby made as of (February or August) respecting the under-mentioned exchange, the total telephones of which do not conform to the group limits to which the exchange is currently assigned:

- 1. Name of exchange.
- 2. Present group number and limits.
- 3. Date present group classification applied.
- 4. Total telephones as at item 3.
- 5. Total telephones at end of each of the six months in the period reported:

Month	Total Telephones	Month	Total Telephones
.....
.....
.....

- 6. Group number and limits appropriate as at date of report.
- 7. Comparison, by type of service, of total telephones in service at date present group classification applied, and at end of the period covered by the report:

Type of service	Total Telephones			
	Former		Present	
	Business	Residence	Business	Residence
* Individual line.....
* Two-Party.....
* Multi-Party.....
* Rural.....
* Message rate (measured).....
* Other.....
Trunks.....
Extension.....

* Excluding extensions.

Total.....

Grand Total.....

8. Data indicating nature of growth or decline in service in the exchange area, such as:
 - (a) completion of held orders.
 - (b) expansion or decline in business activities.
 - (c) growth or decline in residential accommodation.
 - (d) trend of employment and earnings within exchange area.
 - (e) other relevant information.
9. Statement of telephone company's views respecting change of conditions and necessity or otherwise of a change in grouping.

Copy delivered to:

(Name of Company)

.....

(name and address)

(Signature and title of officer)

W.Dos
u
DOMINION OF CANADA

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FORTY-EIGHTH REPORT
of
THE BOARD OF TRANSPORT
COMMISSIONERS FOR CANADA

FOR THE YEAR ENDED
DECEMBER 31



EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1953

DOMINION OF CANADA

FORTY-EIGHTH REPORT
of
THE BOARD OF TRANSPORT
COMMISSIONERS FOR CANADA

FOR THE YEAR ENDED
DECEMBER 31

1952



EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1953

THE BOARD OF TRANSPORT COMMISSIONERS
FOR CANADA

Hon. Justice JOHN D. KEARNEY, *Chief Commissioner*

W. H. M. WARDROPE, *Assistant Chief Commissioner*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner*

F. M. MACPHERSON, *Commissioner*

H. B. CHASE, C.B.E., *Commissioner.*

E. R. HOPKINS,
Secretary.

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REPORT OF THE BOARD OF TRANSPORT COMMISSIONERS FOR CANADA

To the Governor in Council:

Pursuant to the provisions of Section 31 of the Railway Act, 1919, the Board of Transport Commissioners for Canada has the honour to submit its Forty-eighth Report for the year ended December 31, 1952:

AMENDMENT TO THE RAILWAY ACT AND TO THE TRANSPORT ACT

During the year 1952, there were no amendments to the Railway Act or to the Transport Act.

PUBLIC SITTINGS OF THE BOARD

During the year covered by the period from January 1, 1952, to December 31, 1952, the Board held 41 public sittings at which 62 cases were heard. The number of public sittings held in the various provinces was as follows:

Province	Number
Ontario.....	28
Quebec.....	6
Manitoba.....	2
Saskatchewan.....	1
Alberta.....	1
British Columbia.....	2
Nova Scotia.....	1
New Brunswick.....	0
Prince Edward Island.....	0
Newfoundland.....	0
Total.....	41

The applications included a great variety of matters falling within the jurisdiction of the Board under the Railway Act and the Transport Act, and varied from the complaints of private individuals to submissions of general public interest affecting the community as a whole.

FORMAL AND INFORMAL MATTERS

The number of matters dealt with informally as distinguished from matters heard at public sittings, continued to constitute a high percentage of the total applications and complaints dealt with by the Board; that is to say, of a total of 2,706 applications and complaints received and dealt with by the Board 97.71 per cent were disposed of without the necessity of such formal hearing. These informal complaints, dealt with and settled without the necessity of hearing, entailed in many instances a considerable amount of inquiry and consideration on the part of the Board and the Board's officials, and covered a wide range of subjects within the jurisdiction of the Board, varying from complaints of a more or less trivial nature to matters of general public interest affecting the community as a whole, or involving the application of some general principle regarding the transport rates.

APPEALS FROM JUDGMENTS OF THE BOARD

During the year 1952 there was one case carried in appeal to the Supreme Court of Canada, namely, Canada Steamship Lines Limited appeal from Order of the Board No. 78767, dated April 16, 1952, directing the Canadian National Railways and the Canadian Pacific Railway Company to make a reduction in freight rates in accordance with Board's Circular No. 272, dated April 16, 1952 which was issued in implementation of sub-section 5 of section 18, Chapter 22, 15-16 Geo. VI. This appeal was still pending on December 31, 1952.

DECISIONS AND RULINGS OF THE BOARD

Brief notes on the more important judgments delivered in 1952 are given below.

APPLICATION OF BRITISH COLUMBIA TELEPHONE COMPANY FOR APPROVAL
OF INCREASES OF CERTAIN LONG DISTANCE MESSAGE TOLLS AND EXCHANGE
SERVICE TARIFFS.

41 J.O.R. & R. 351

The purpose of the application of the telephone company was to increase its revenues in order to be in a position to meet wage and tax increases forming a total of \$2,349,323. The Board held that income taxes were a legitimate cost of doing business that must be provided for in the determination of just and reasonable rates and, therefore, approved the new rate structure proposed by the company to meet the increased costs referred to above, in lieu of the rate structure which had been authorized in the interim decision of the Board of July 6, 1951. See 41 J.O.R. & R. 174.

APPLICATION OF THE RAILWAY ASSOCIATION OF CANADA, DATED DECEMBER
21, 1950, FOR AUTHORITY TO MAKE GENERAL INCREASES IN THE FREIGHT
RATES

41 J. O. R. & R. No. 21A

This application had already been dealt with by the judgment of the Board, dated July 4, 1951, 41 J.O.R. & R. 161, which authorized an interim general freight rate increase of 12% with certain exceptions. Before it was finally determined, the application was twice amended. In the final judgment an increase in freight rates of 17% was authorized, with exceptions upon some commodities, in place of the interim increase of 12% previously granted. This authority was granted for a limited period and subject to further directions. This decision was arrived at after a calculation of the financial requirements of the railways, including fixed charges, dividends and surplus, and after deductions from and additions to the expense figures presented by the applicant.

APPLICATION OF THE BELL TELEPHONE COMPANY OF CANADA, DATED
AUGUST 31, 1951, FOR APPROVAL OF REVISED RATES FOR EXCHANGE
SERVICES AND EQUIPMENT

42 J.O.R. & R. 1

An interim increase had already been granted by a decision of the Board, dated November 13, 1951, with respect to this application. That decision reported in 41 J.O.R. & R. 289 had authorized, generally speaking, a 5% increase in all services, including the long distance services. Because of new taxes, the delay of re-grouping certain exchanges and the fact that the decision of

the Board granting the interim increase referred to above had not provided for the full rates sought by the Company for the whole of 1952, the Company amended the present application by substituting new schedules of rates thereto before final judgment was rendered on the said application. In its final determination, the Board maintained the increase previously authorized in long distance rates and in public and semi-public coin box charges, but modified the other increased rates as proposed by the Company in conformity with its findings as regards the revenue deficiency of the Company for the year 1952, amounting to approximately \$14,339,000.

ROBIN HOOD FLOUR MILLS LTD. v. CALGARY

41 J.O.R. & R. 398

The applicant in this case requested the Board to amend an Order authorizing the City of Calgary to construct a subway, in order to be granted leave to claim compensation for loss or damage incurred with respect to the said construction. The City opposed the application on the ground that section 257 of the Railway Act under which the original Order was made provided for compensation in certain cases, not including grade separation as in the present case, and that works covered by section 257 must be deemed to be exceptions from the operation of section 39. The Board held that section 257 is not a complete code as to the payment of compensation in respect of works coming within that section; that neither in section 257 nor elsewhere is there an express provision falling within the exception contained in section 39(1) that would leave the Board without power to order compensation in respect of the subway. The Board therefore, amended its Order as requested.

REVIEW OF THE DECISION IN *Re COMPLAINT OF WESTERN GROCERS LIMITED et al.* RATES ON CANNED GOODS BY WATER TO FORT WILLIAM AND PORT ARTHUR, ONTARIO.

42 J.O.R. & R. 57

The carriers applied for a review of the decision of the Board in this case, as reported in 41 J.O.R. & R. 186. The Board, however, after a new hearing maintained its previous decision with the exception of a minor change in the absorption by the water carriers of certain additional charges, if they did not provide certain facilities for the receiving and the delivering of traffic for local delivery at the Lakehead.

APPLICATION OF THE CANADIAN NORTHERN RAILWAY COMPANY (C.N.R.) FOR LEAVE TO ABANDON THE OPERATION OF THE WESTPORT SUBDIVISION IN THE PROVINCE OF ONTARIO, BETWEEN LYN JUNCTION AND WESTPORT, A TOTAL DISTANCE OF 40.51 MILES

42 J.O.R. & R. 96

The Board granted this application because continued operation of the line in question on the one hand meant continued heavy losses for the railway, and the public on the other hand could be assured reasonable service by other transportation agencies. The Board considered that the financial burden that the continued operation of this line would impose upon the railway, outweighed the inconvenience that the public would suffer consequent upon the abandonment of the said line.

APPLICATION OF C.N.R., C.P.R., *et al* FOR APPROVAL OF AGREED CHARGE
C.T.C. (A.C.) No. 48 BETWEEN THE APPLICANTS AND IMPERIAL OIL
LTD., AND NORTH STAR OIL LTD. ON CERTAIN SPECIFIED
PETROLEUM PRODUCTS FROM CALGARY, EAST EDMON-
TON ETC. TO POINTS IN THE PROVINCES OF
ALBERTA, BRITISH COLUMBIA, ETC.

42 J.O.R. & R. 121

This application was made by the railway carriers in order to continue enjoying the business, particularly, of the Imperial Oil Ltd. who planned to resort to highway transportation of its products with its own equipment unless it could obtain reduced rates from the railways. Representatives of concerns engaged in highway motor truck transportation applied to the Board to be heard in opposition to the application. The Board held on this point that those engaged in highway transportation were not carriers within the meaning of the Transport Act. The Board approved the agreed charge involved after having ascertained that the net revenue position of the railway carriers would thereby be benefited.

COMPLAINT BY ROBIN HOOD FLOUR MILLS LTD., LAKE OF THE WOODS MILLING
Co. *et al Re* STOP-OFF AND OUT-OF-LINE HAUL CHARGES ON GRAIN AND
GRAIN PRODUCTS IN WESTERN CANADA.

42 J.O.R. & R. 163

The complainants in this case submitted that the railways had erred in applying to stop-off and out-of-line haul charges on grain and grain products in Western Canada the percentage increases authorized by the Board in the general revenue cases, in that stop-off and out-of-line haul charges are part of the through rate on grain and grain products; that section 59(4) of the Canada Grain Act establishes a ceiling on stop-off charges with the result that increases made in other stop-off charges are unjustly discriminatory; that the increases applied to out-of-line haul charges are unreasonable and result in unjust discrimination by comparison with direct haul movements; and that the Board's ruling of December 21, 1948, (63 C.R.T.C. 56) should be reconsidered.

The Board held that the authorization for increased rates and charges provided in its Orders issued in connection with applications for increased freight rates was properly applied by the railways to charges for stop-off and out-of-line hauls; that stop-off and out-of-line haul charges on traffic not subject to mileage line haul rates are separately established charges when applied in respect of transit privileges accorded by the railways; that stop-off and out-of-line haul charges are not governed by subsection 5 of section 325 of the Railway Act; that stop-off charges to the extent stated in section 59(4) of the Canada Grain Act are a statutory obligation and as such do not create a condition of unjust discrimination or undue preference within the meaning of the relevant provisions of the Railway Act; and that the stop-off charges and charges for out-of-line haul, increased to the extent permitted by the Orders authorizing increased freight rates, are not unreasonable or unjustly discriminatory. The Board, therefore, dismissed the complaint.

APPLICATION OF THE RAILWAY ASSOCIATION OF CANADA FOR AN IMMEDIATE
INCREASE OF 8% IN FREIGHT RATES.

42 J.O.R. & R. 14A

The request for an immediate increase of 8% formed only a portion of the application of the Railway Association, dated July 14, 1952. Its main purpose was to obtain an increase in the earnings of the railways to make up for the expected deficiency in reaching the goal of earnings that had been tentatively fixed by the judgment of the Board, dated January 25, 1952, with respect to

the Canadian Pacific Railway Company used as a yardstick in the revenue cases. The Board found that circumstances and conditions had not changed sufficiently since the last previous judgment to warrant a recasting of the general level of freight rates.

APPLICATION OF WESTCOAST TRANSMISSION COMPANY LIMITED FOR AUTHORITY TO CONSTRUCT A PIPE LINE FOR THE TRANSPORTATION OF GAS FROM A POINT IN THE VICINITY OF THE POUCE COUPE AREA IN ALBERTA TO A POINT IN THE VICINITY OF THE CITY OF VANCOUVER, WITH A PIPE LINE BRANCH TO THE BOUNDARY LINE.

42 J.O.R. & R. 78 and 208

This application is for the purpose of building a pipe line for the transportation of natural gas to serve users located on the Pacific coast, both in Canada and the United States. The Board granted the required authority after having found that all the other necessary permits had been obtained from the federal and provincial authorities, that the means of financing the project were satisfactory and finally, that the gas reserves were sufficient to warrant the construction of the proposed pipe line.

APPLICATION OF BRITISH COLUMBIA TELEPHONE COMPANY, DATED OCTOBER 22, 1952, FOR APPROVAL OF PROPOSED INCREASED RATES AND CHARGES.

42 J.O.R. & R. 251

The applicant, in view of its urgent need for additional revenues, requested an interim hearing of its application at the earliest possible date in order that at least a part of the additional required revenue might be recovered in the form of interim rates. The Board acceded to this request and, after the interim hearing was held, authorized an increase in rates that would produce sixty-five per cent of the sum of additional revenue during a twelve month period, namely \$2,451,021.00 sought by the applicant as an interim measure. The matter of the other revenue requirements of the company was reserved for further consideration at the final hearing of the application.

IN THE MATTER OF THE GENERAL FREIGHT RATES INVESTIGATION DIRECTED BY ORDER IN COUNCIL P.C. 1487, DATED APRIL 7, 1948 (EQUALIZATION CASE)

42 J.O.R. & R. No. 18A

In pursuance of Order in Council P.C. 1487 and the provisions of the federal statute 15-16 George VI chapter 22, assented to December 21, 1951, the Board, following an informal conference of legal and traffic experts, the receipt of advice from persons having an intimate knowledge of freight rates and consideration of the waybill analyses for four selected days in 1949 and 1951, adopted a Uniform Scale of Mileage Class Rates for application throughout Canada, west of Levis, Diamond and Boundary, in the Province of Quebec. The railways subject to the jurisdiction of the Board were, therefore, required to file tariffs effective January 1st, 1954, to give effect to the new Class rate scale except in respect of the rates referred to in subsection 4 of section 332A of the Railway Act. Before it becomes effective, the new class rate scale may be subject to modifications following the regional hearings that the Board proposes to hold during 1953 to afford an opportunity to interested parties to make representations regarding the new class rate scale. The judgment also dealt briefly with some other aspects of the rate structure, more particularly with commodity mileage scales, "special service" rates and the freight classification, all of which will be further considered at a later stage of the proceedings.

APPLICATION OF THE RAILWAY ASSOCIATION OF CANADA FOR AN ORDER RESCINDING G.O. No. 125, INsofar AS SAID ORDER GAVE EFFECT TO PART XX OF THE JUDGMENT OF THE BOARD, DATED APRIL 6, 1914, WHICH INTER ALIA PRESCRIBED A SCALE OF LOCAL MILEAGE RATES ON GRAIN AND GRAIN PRODUCTS WITHIN WESTERN CANADA

42 J.O.R. & R. 233

The railways based their application mainly on the grounds that the present Western scale of mileage rates on grain was unreasonably low having regard to the increase in the cost of railway operation since the scale was last dealt with in 1921, and that it created unjustified disparities in the grain rates in Western Canada and also as compared with rates in Eastern Canada.

The Board decided that an increase in the local Western grain mileage scale was justified but not to the extent applied for nor in the manner suggested by the railways. The Board, therefore, devised a new scale which it considered a step towards equalization and more suitable for the conditions of Western Canada. The scale is based upon a regular rate of progression and tapering having regard to mileage, and the increases vary from one cent to thirteen cents on individual rates, compared with two cents to fifty-five cents suggested by the railways.

APPLICATION OF THE RAILWAY ASSOCIATION OF CANADA, DATED NOVEMBER 28, 1952, FOR AUTHORITY TO MAKE AN IMMEDIATE GENERAL INCREASE OF 9% IN THE FREIGHT RATES (10 CENTS TO 20 CENTS PER TON ON COAL AND COKE).

42 J.O.R. & R. 269

This application was made to enable the railways to obtain more earnings for the purpose of meeting the increases in salaries or wages of the non-operating employees, amounting to 7% plus 7 cents per hour, recently recommended by a majority report of a conciliation board. These increases in salaries were equivalent to an increase of 16.05 cents per hour and would cost the Canadian Pacific Railway Company \$21,342,000. on an annual basis.

The Board granted the application after the exhibits filed in support thereof were analysed and verified by its Bureau of Transportation Economics and its special accounting and financial adviser.

COMPLAINT OF MAPLE LEAF MILLING COMPANY LIMITED, AND ROBIN HOOD FLOUR MILLS LIMITED, *Re* RATES ON GRAIN PRODUCTS, CARLOADS, FROM PORT COLBORNE AND HUMBERSTONE, ONTARIO, MILLED FROM GRAIN RECEIVED EX-WATER.

42 J.O.R. & R.

In this case, the complainants which operate lake mills contended that the freight rates they were charged were equivalent to those charged the inland mills although they were not receiving from the railways the stop-off or miling-in-transit service enjoyed by the inland mills. The railways answered that the rates in question were maintained on an equivalent basis because it was a measure of long standing to equalize rates among the competing mills in the area, and also because a great deal of valuable traffic would be lost to them if such equivalence in the rates were not maintained.

The Board held in dismissing the complaint, that the rates charged the complainants had not been found to be unreasonable per se or unjustly discriminatory against them.

ORDERS, GENERAL ORDERS AND CIRCULARS

The total number of orders issued for the year ended December 31, 1952, was 2,509, an increase of 285 over the number issued for the year ended December 31, 1951. The number of general circulars issued by the Board directed to all the transport companies subject to its jurisdiction was 6. The general orders, as distinguished from other orders of the Board, are those affecting all transport companies subject to its jurisdiction, and were 6 in number for the year.

The general orders and circulars issued by the Board during the year ended December 31, 1952, are in Appendix "H" of this report.

APPLICATIONS TO THE BOARD

The total number of applications, including informal complaints, made to the Board in the year ended December 31, 1952, was 2,706, an increase of 16 over the number made in the year ended December 31, 1951.

CHANGES IN THE PERSONNEL OF THE BOARD

During the year 1952, the more important changes in the personnel of the Board's staff were as follows:

Mr. L. J. Knowles, was appointed Traffic Adviser to the Board on April 1st, 1952, T.B. 423149, dated March 12, 1952.

Mr. L. P. Kent, of Riddell, Stead, Graham & Hutchison, Chartered Accountants, Montreal, P.Q., was appointed Accounting Adviser to the Board on November 22, 1951, T.B. Order 423149, dated March 12, 1952.

Mr. E. R. Hopkins was appointed Secretary to the Board on February 26, 1952, P.C. Order 1159, dated February 26, 1952.

Mr. P. F. Baillargeon was appointed Legal Adviser to the Board on February 26, 1952, P.C. 154/1525, dated March 17, 1952.

TECHNICAL SERVICES

Besides its Administrative and Legal branches, the Board is composed of four main technical departments, namely: the Traffic, the Engineering and the Operating departments and the Bureau of Transportation Economics. Summaries of the activities of these departments, during 1951, are contained in the Appendices to this report.

APPENDIX "A"

LIST OF MEMBERS OF THE BOARD WHO HAVE SERVED OR ARE SERVING
ON THE BOARD.

Member's Name	Office	Appointment	Termination
Hon. A. G. Blair, K.C.....	Chief.....	1st Feb. 1904.....	31st Oct. 1904 (resigned)
Hon. M. E. Bernier.....	Deputy....	1st Feb. 1904.....	31st Jan. 1914 (served term)
James Mills.....	Commr....	1st Feb. 1904.....	31st Jan. 1914 (served term)
Hon. A. C. Killam, K.C.....	Chief.....	6th Feb. 1905....	1st March, 1908 (died)
Hon. J. P. Mabee, K.C.....	Chief.....	28th March, 1908	6th May 1912 (died)
D'Arcy Scott.....	Ass't.....	17th Sept. 1908...	16th Sept. 1918 (served term)
S. J. McLean.....	Commr....	17th Sept. 1908...	16th Sept. 1918 (reappointed)
Hon. Thos. Greenway.....	Commr....	17th Sept. 1908...	30th Oct. 1908 (died)
A. S. Goodeve.....	Commr....	4th April 1912....	22nd Nov. 1920 (died)
Henry L. Drayton, K.C.....	Chief.....	1st July 1912.....	1st Aug. 1919 (resigned)
Hon. W. B. Nantel, K.C.....	Deputy....	20th Oct. 1914....	19th Oct. 1924 (served term)
A. C. Boyce, K.C.....	Commr....	4th Oct. 1917.....	3rd Oct. 1927 (served term)
Dr. J. G. Rutherford, C.M.G.....	Commr....	17th Sept. 1918...	24th July 1923 (died)
Hon. F. B. Carvell, K.C.....	Chief.....	2nd Aug. 1919....	9th Aug. 1924 (died)
S. J. McLean, LL.B.....	Commr....	16th Sept. 1918...	15th Sept. 1928 (reappointed)
	Ass't.....	6th Aug. 1919....	
Calvin Lawrence.....	Commr....	4th Nov. 1921....	4th May, 1931 (died).....
Hon. Frank Oliver.....	Commr....	21st Sept. 1923....	20th Sept. 1928 (reached age of 75)
Hon. H. A. McKeown, K.C.....	Chief.....	16th Sept. 1924....	28th Feb. 1931 (resigned)
Thomas Vien, K.C.....	Deputy....	5th Sept. 1925....	31st Jan. 1931 (resigned)
Hon. T. C. Norris.....	Commr....	30th March, 1928.	29th March 1938 (served term)
S. J. McLean, LL.B.....	Ass't.....	17th Sept. 1928...	16th Sept. 1938 (served term)
John A. Stoneman.....	Commr....	12th March, 1929	11th March 1939 (reappointed)
Hon. C. P. Fullerton, K.C.....	Chief.....	13th Aug. 1931....	31st Dec. 1933 (resigned)
F. A. Labelle.....	Deputy....	16th Dec. 1931....	15th July 1933 (died)
G. A. Stone.....	Commr....	16th Dec. 1931....	15th Dec. 1941 (reappointed)
F. Nap. Garceau, K.C.....	Deputy....	16th Sept. 1933...	10th April 1943 (reached age of 75)
Hon. Hugh Guthrie, K.C.....	Chief.....	12th Aug. 1935....	3rd Nov. 1939 (died)
Hugh Wardrope.....	Ass't.....	8th Nov. 1938....	8th Nov. 1948 (reappointed)
John A. Stoneman.....	Commr....	11th March 1939.	10th March 1949
F. M. MacPherson.....	Commr....	21st Sept. 1939....	20th Sept. 1949 (reappointed)
J. A. Cross, Col., D.S.O., K.C.....	Chief.....	1st April 1940....	30th June, 1948 (resigned)
G. A. Stone.....	Commr....	15th Dec. 1941....	1st July 1947 (reached age of 75) (Reappointed—1st July, 1947, to 30th June, 1948)
Armand Sylvestre, K.C., LL.B.....	Deputy....	18th April 1945....	17th April 1955
Hon. Mr. Justice M. B. Archibald....	Chief.....	1st July 1948.....	Resigned
H. B. Chase, C.B.E.....	Commr....	28th July 1948....	27th July, 1958
Hugh Wardrope.....	Ass't.....	8th Nov. 1948....	7th Nov. 1958
W. J. Patterson.....	Commr....	1st April 1949....	3rd July, 1951 (resigned 1st Nov. 1950)
Hon. Mr. Justice J. D. Kearney.....	Chief.....	1st Nov. 1951....	30th Oct. 1961
O. A. Matthews.....	Commr....	1st Jan. 1953....	31st Dec. 1962

APPENDIX "B"

(1) Since the establishment of the Board, its jurisdiction has been extended to the following matters:—

- (a) Bridges—3 Edw. VII, C.58, S.8 and R.S. Can. 1927, C.20.
- (b) Express Tolls—6 Edw. VII. C.42, S.27, 1906.
- (c) Telegraph companies—C.61, 1908, S.4.
- (d) Telephone companies—6 Edw. VIII. C.42. S.30.
- (e) Radio—1938 Can. Statutes. C.50, S.6.
- (f) International bridges and tunnels—1929. C.54.
- (g) Maritime Freight Rates Act—1927, C.44.
- (h) Abandonment of Operation of Railway Lines—1933, C.47 (S.165A).
- (i) Canadian National-Canadian Pacific Act, 1933, C.33.
- (j) The Transport Act, 1938, C.53—(Licensing and rate regulation of ships; agreed charges).
- (k) Agreements—(S.35 of present Act)—8-9 Edw. VII, C.32, S.1.
- (l) Purchase of electrical energy from a person who has acquired water power under lease from the Crown (S.374 of present Act 1909, C.31, S.1.
- (m) Railway Grade Crossing Fund (S.262 of present Act)—1909. C.32, S.7.
- (n) The Pipe Lines Act, 13 Geo. 6, Chap. 20, 1949.

(2) Since 1923 the jurisdiction of the Board has been extended to the following railways:—

- Hudson Bay Railway.
- Intercolonial.
- Prince Edward Island.
- National Trans-Continental.
- Lake Superior Branch (Leased from G.T.P.R.).
- Quebec North Shore and Labrador Railway.

(3) In addition to the above there are a number of Acts which gave the Board jurisdiction over particular companies in certain specified matters.

APPENDIX "C"

REPORT OF THE TRAFFIC DEPARTMENT FOR THE YEAR
ENDED DECEMBER 31, 1952

Submitted herewith is the report of the Traffic Department of the Board for the calendar year 1952, setting out the number of tariff schedules and ancillary tariff documents received for filing: also a brief summary of other work performed.

TARIFFS AND SUPPLEMENTS FILED:—

<i>Rail—</i>	
Freight.....	26,428
Agreed Charges.....	34
Passenger.....	1,816
Sleeping and Parlour Car.....	72
<i>Water—</i>	
Freight.....	112
Passenger.....	22
Express.....	1,402
Telephone.....	2,411
Telegraph.....	209
Bridges and Tunnels.....	5
Total tariff schedules.....	32,511

OTHER TARIFF DOCUMENTS FILED:—

Concurrences.....	271
Revocation Notices.....	34
Powers of Attorney.....	443
Revocation Notices.....	81
By-Laws.....	8
Total tariff documents.....	837
Total.....	33,348

MARITIME FREIGHT RATES ACT

For the period July 1, 1951 to June 30, 1952 inclusive, the detail of the work performed was:

Rates checked.....	1,145,322
Extensions checked.....	572,661
Additions checked.....	11,254
Corrections issued.....	8,838
Orders issued.....	201

Reimbursement claimed.....	\$ 1,588,290.43
Reimbursement allowed.....	1,571,266.47
Net deduction.....	17,023.96

CORRESPONDENCE

A total of 3,658 communications emanated from this Department during the year relating to its administrative functions in the handling of complaints; interpretation of tariffs or classification and the filing of same; furnishing rate information; also, concerning powers of attorney, concurrences, free or reduced transportation; administration of the Maritime Freight Rates Act and the granting of water licences under The Transport Act, 1938.

ORDERS ISSUED

During the year, in addition to Orders issued pursuant to the Maritime Freight Rates Act as mentioned above, the following Orders were issued:

Traffic	Water Licences	Agreed Charges	Telephone	Total
32	21	21	131	205

AGREED CHARGES

During the year Agreed Charge matters were:

New Agreements	Amendments to former Agreements	Fixed Charges	In effect December 31, 1952	
			Agreements	Shippers
3	16	6	25	77

TRANSPORTATION LICENCES

Licences, under Part 2 of The Transport Act, 1938, were granted as follows:

Licences	Ships	Area
9	72	Great Lakes
5	140	Mackenzie River
1	4	Yukon River

MISCELLANEOUS

During the year this Department dealt with 312 applications including formal complaints, and among other matters continued assistance in the preparation of basic data for purposes of the Board's "Waybill Analysis".

A. S. KIRK,
Director.

APPENDIX "D"

February 4, 1953.

THE SECRETARY,
BOARD OF TRANSPORT COMMISSIONERS FOR CANADA,
OTTAWA, CANADA.

DEAR SIR,—

I submit herewith my Annual Report and information regarding the work of the Engineering Branch of the Board during the past year, and attach herewith details and summarized statement of works of the Engineering Department during the year 1952.

Yours very truly,

KELLS HALL,
Director of Engineering.

RAILWAY GRADE CROSSING FUND, AND SPECIAL VOTES

In accordance with the provisions of sub-section (5) of Section 262 of the Railway Act, 1909, provision was made that the sum of \$200,000 each year, for ten consecutive years from the first day of April 1909, be appropriated and set apart from the consolidated revenue fund for the purpose of aiding actual construction work for the protection, safety, and convenience of the public in respect of highway crossings of railways at rail level, in existence on the first day of April, 1909, the said sums to be placed to the credit of a special account to be known as "The Railway Grade Crossing Fund", to be applied by the Board, subject to certain limitations set out in the act, and amending Acts, solely towards the cost (not including that of maintenance and operation), of actual construction work for the purpose specified. In 1919, the same sum was voted for another ten years and again in 1929.

In 1947 the sum of \$200,000 a year was voted for a period of ten years, and increased to \$500,000 a year for 1948, 1949 and 1950. This sum was further increased to one million dollars for six consecutive years from the 1st day of April, 1951.

An amount of \$500,000 was transferred to the Railway Grade Crossing Fund from the Unemployment Relief Fund, 1930, and \$500,000 from the Unemployment and Farm Relief Fund, 1931-1932; \$500,000 by special vote of Parliament in 1934. In 1938, \$300,000 was placed in the Railway Grade Crossing Fund in addition to the usual \$200,000 and \$500,000 was placed in the Railway Grade Crossing Fund by special vote in 1939; \$1,000,000 by the Public Works Construction Act, 1935; \$1,000,000 by Vote 420, Special Supplementary Estimates 1936-37; Vote 357, Special Supplementary Estimates, 1937-38, \$1,064,000; Vote 630, Supplementary Estimates 1938-39 provided \$1,000,000; and Vote 585, Supplementary Estimates 1939-40 provided \$1,000,000, making the total provided to the end of the year 1952 of \$17,064,000. Out of these funds the sum of \$13,664,843.24 has already been paid.

The funds voted to the Railway Grade Crossing Fund are accumulative, whereas the money provided by the Special Votes had to be committed to projects by the end of the current fiscal year, when the vote elapsed, and funds not already committed were no longer available.

Expenditures from the Railway Grade Crossing Fund were low during the War years, due to labor and material being directed to War purposes, and recommendations were only made for protection at highway crossings when absolutely necessary at the time.

In 1928, the Railway Act was amended by Chapter 43, 18-19 George V, and provision was made that in the case of any one crossing the total amount of money to be applied by the Board out of the Railway Grade Crossing Fund, in providing protection, safety and convenience for the public, shall not exceed forty per cent of the cost of the actual construction work, and in no case shall the contribution exceed \$100,000. This was amended by Chapter 20, 14, George VI, dated June, 1950, so that the total amount to be applied for any one crossing was increased to \$150,000. Under the terms of the Public Works Construction Act, 1935, Vote 420, of the Special Supplementary Estimates 1936-1937; Vote 357 of the Special Supplementary Estimates 1937-1938; Vote 630 Supplementary Estimates 1938-39; and Vote 585 Supplementary Estimates, 1939-40; grants could be made up to 100 per cent of the cost of construction out of the funds provided under those Acts.

It will be noted that the Board is restricted to a contribution from the Railway Grade Crossing Fund of 40 per cent of the cost of construction of any project, and is able to pay nothing to the cost of the maintenance. The remaining sixty per cent of the cost of construction and the entire cost of maintenance must be divided between the other interested parties, that is, generally the Railway and the Municipal authority. The maintenance costs of automatic protection, if capitalized in most cases, is equal to or greater than the original cost of construction.

Due to a shortage of materials, especially steel, many desirable projects, especially grade separations, have not been proceeded with during the past year. Some of these proposals have been inspected and no doubt will be proceeded with when materials are in more adequate supply.

Grade separations were completed during the year at the following points, and contributions were made towards the cost of construction out of the Railway Grade Crossing Fund:—

Grade Separations	Contributions from Railway Grade Crossing Fund
Overhead bridge, C.P.R., Seereton, Sask., Mileage 44.5, Swift Current Subdivision, Sask.....	\$ 15,125.73
Subway, C.N.R., Burnside, N.S., Mileage 10.06, Dartmouth Sub-division.....	63,600.00
Overhead bridge, K.V.R., Mileage 5.35, Carmi Subdivision, B.C.....	26,200.00
Subway, C.N.R., Jones Ave., Toronto, Ont.....	150,000.00
Subway, C.N.R. and C.P.R., Dupont St., Toronto, Ont.....	150,000.00
Overhead bridge, C.P.R., Highway No. 11A in the Northwest quarter of Section 14, Twp. 39, Rge. 7, W5M, at Mileage 59.4, Alberta Central Subdivision.....	6,000.00

The following statements show the distribution of funds provided for the protection of highways crossing railways from 1909, when the first grant was made, to December 31, 1952.

STATEMENT SHOWING TOTAL AMOUNT PAID FOR WORK DONE IN THE DIFFERENT PROVINCES, OUT OF THE RAILWAY GRADE CROSSING FUND AND SPECIAL VOTES —PERCENTAGE OF TOTAL EXPENDITURE IN EACH PROVINCE, AND PERCENTAGE OF POPULATION OF CANADA IN EACH PROVINCE, FROM 1909 TO DECEMBER 31, 1952.

Province	Total expenditure from the different Votes	Percentage of Total amount of Expenditure	Population of Province	Percentage of Population of Canada
	\$ cts.			
British Columbia.....	985,187 04	7·21	1,153,000	8·32
Alberta.....	492,979 65	3·61	936,000	6·74
Saskatchewan.....	689,081 53	5·04	829,000	5·99
Manitoba.....	396,811 48	2·90	771,000	5·56
Ontario.....	6,814,362 97	49·87	4,562,000	32·90
Quebec.....	2,943,812 97	21·54	4,010,000	28·92
New Brunswick.....	491,872 29	3·60	512,000	3·69
Nova Scotia.....	827,974 69	6·06	638,000	4·60
P. E. Island.....	22,760 62	·17	98,000	·71
Newfoundland.....			357,000	2·57
Totals.....	13,664,843 24	100·00	13,866,000	100·00

ENGINEERING DEPARTMENT
January 6, 1953.

EXPENDITURES FOR PROTECTION AT HIGHWAY CROSSINGS
1909 to DECEMBER 31, 1952

Province	Railway Grade Crossing Fund	Percentage of Total	Municipality	Percentage of Total	Railway	Percentage of Total	Total
	\$ cts.		\$ cts.		\$ cts.		\$ cts.
British Columbia..	985,187 94	39·39	966,022 91	38·62	549,917 42	21·99	2,501,127 37
Alberta.....	492,979 65	36·39	442,611 72	32·60	422,308 82	31·10	1,357,900 19
Saskatchewan.....	689,081 53	36·48	847,427 65	44·86	352,629 39	18·66	1,889,138 57
Manitoba.....	396,811 48	41·92	221,487 49	23·41	328,123 65	34·67	946,422 62
Ontario.....	6,814,362 97	21·29	1,764,972 08	33·63	14,431,628 42	45·08	32,010,973 47
Quebec.....	2,943,812 97	38·95	3,523,785 79	46·62	1,090,300 04	14·43	7,557,898 80
New Brunswick...	491,872 29	30·53	580,857 27	36·06	538,189 82	33·41	1,610,919 38
Nova Scotia.....	827,974 69	44·36	697,619 26	37·38	340,836 29	18·26	1,866,430 24
P. E. Island.....	22,760 62	60·08	12,822 98	33·85	2,300 94	6·07	37,884 54
Newfoundland.....							
Totals.....	13,664,843 24	27·45	18,057,607 15	36·28	18,056,234 79	36·27	49,778,685 18

The above figures include payments from the Railway Grade Crossing Fund and all other Votes for highway crossing protection.

ENGINEERING DEPARTMENT
January 7, 1953.

PROTECTION AT HIGHWAY CROSSINGS BY WIG-WAGS AND BELLS, FLASHING LIGHT SIGNALS AND BELLS, AND ELECTRIC GATES

During the year there were 106 installations of automatic protection at railway crossings, in addition to some 42 cases of circuit improvement in connection with existing protective devices.

Applications for automatic protection at railway highway level crossings are made by Municipal and Provincial Highway Authorities, sometimes by the Railways. Other cases are brought to the Board's attention by the officers of the Board. All applications do not result in installation of the protection applied for, but in the majority of cases all applications entail an inspection by an Engineer of the Board and his report for the Board's decision.

In the case of all installations the Board's Engineers made inspections and conducted a thorough test to ascertain if the installation had been made in accordance with the approved practice and plans, and if the protection was working in a satisfactory manner. An audit of all costs of protection installed was made by an Engineer of the Board. This involved the checking of all items of labour, material, as well as the original invoices. Recommendation was then made in connection with payment from the Railway Grade Crossing Fund, or special fund.

There were many inspections made during the year in connection with applications for highway crossing protection which did not result in installation, since as a result of the inspection it was found that conditions did not warrant the protection applied for.

HIGHWAY CROSSINGS OPENED, CLOSED, AND HIGHWAY DIVERSIONS

There were 234 new highway crossings opened during the year, and 35 closed, together with 18 highway diversions. The highway crossings opened involved cases where the railway companies wished to extend their tracks across the existing public ways, and where Municipal and Highway Authorities desired to cross existing tracks by new, or diverted highways.

Plans and profiles of the proposed crossings were carefully examined by Engineers of the Board, in order to endeavour to eliminate any objectionable features, such as obstruction to view, grades of approach, etc., and to bring about the safest possible travel conditions. A great many of the cases applied for required an examination on the ground, and recommendations were made following the inspections. Inspections were made in connection with highway diversions to eliminate wherever possible existing railway crossings.

INTERLOCKING PLANTS, AND CHANGES TO PLANTS AND SIGNALS

Recommendations were made in connection with changes to 43 interlocking plants and 25 interlocking plants were inspected in connection with Operating Orders.

When applications are made by the railways for approval of plans, covering the installation of, and changes to, signals and interlocked switches at diamond crossings, bridges, or junctions, a thorough check of track and signal plant is made to ensure that the plant is designed to provide full protection for all train movements through the interlocking with signals and switches so arranged and interlocked mechanically, electrically, or both, to prevent trains from receiving conflicting indications.

Before the plants were placed in service, the Board's Engineer made a check in the field in all cases to ensure that circuits were installed in accordance with approved plan, and that the signals and switches functioned as intended. Recommendation was made to the Board in all cases in connection with the necessary Operating Order before the plants were put in operation.

During the year, approval was given to the installation of a traffic control system of signals on the Quebec North Shore and Labrador Railway, from Mile 0.0 to Mile 110.0, Province of Quebec, and the T.H.&B. Railway, from Hamilton to Welland, Ontario, a distance of approximately forty miles.

Approval was also given to the installation of, and changes to, automatic signals on the Canadian National Railways and the Canadian Pacific Railway Company in various parts of Canada, covering many miles of modernized signalling, the most extensive project being on the C.P.R. between Bolton and Medonte, Ontario, from Mileage 22.0 to Mileage 93.6, MacTier Subdivision.

All such signal installations are thoroughly inspected and checked by the Board's Signal Engineer to ensure that the signals are installed in accordance with approved plan, and that they are functioning as intended, before final recommendation was made to the Board for approval of the signals as installed.

BRIDGES

During the year there were 79 bridges and subways approved for construction and reconstruction. The use of heavier motive power has made it necessary to carry out various works capable of safely carrying the heavier rolling stock at speeds greatly in excess of those in existence some years ago. This involves strengthening and reconstruction of bridges and culverts. The plans in connection with these structures were all submitted and were examined by an Engineer of the Board, and recommendation was made to the Board in connection therewith. After the structures were completed, examinations were made in all cases by an Engineer of the Board to ascertain if the structures were built according to the approved plan and safe for the carriage of traffic.

In addition to the above, inspections were made of 108 bridges for safety of operation and recommendations made for an Order of the Board authorizing the railway companies to operate over them.

OPERATION OF BRANCH LINES AND INDUSTRIAL SPURS

The Engineering Department examined applications and plans in connection with operation over industrial spurs, and recommendations were made for 49 approving Orders.

MAINTENANCE OF TRACK AND STRUCTURES

One of the important duties of the Engineering Department of the Board is the inspection of track conditions to ensure safety of travel over approximately fifty-seven thousand miles of railway trackage in Canada under the Board's jurisdiction. The Board's Engineers throughout the year travelled over and inspected all the Main Lines of railway and a considerable mileage of branch lines, to ensure the safety of track for public travel. Particularly close and intensive examination was made of any Subdivision where any accident took place to ensure that standard practice and standard precautions had been taken, and the trackage was being properly maintained.

TUNNELS, WATER, GAS, OIL AND SEWER PIPES,
UNDERGROUND MINE WORKINGS

In addition to the inspections enumerated above, plans were examined in connection with applications for water, gas, and sewer pipes passing under the railways. In a number of cases these involved an inspection in the field.

A number of applications were received in connections with underground workings closely approaching the railway right-of-way and examinations and recommendations were made to ensure every safety precaution for the Board's consideration in issuing Order.

COMPANY PIPE LINES FOR GAS AND OIL

The Pipe Lines Act places under the jurisdiction of the Board all company pipe lines which are international or interprovincial. During the year the Trans Mountain Oil Pipe Line from Edmonton, Alberta, to Vancouver, B.C., was started and 327 miles of pipe was laid, in a total length of 711 miles. No portion of this pipe line was tested for operation, but a full-time Engineer was employed on supervision of construction. It is anticipated that this pipe line will be completed in 1953 and put into operation.

The Trans Northern Oil Pipe Line (to carry converted oil products) between Montreal, Toronto and Hamilton, with branch lines to Ottawa, Prescott and Clarkson, a total distance of 420 miles, was completed, tested, and put in operation. This involved inspections by Board's Engineers, and before being opened for Traffic, each section was tested, at which tests Engineers of the Board were present to supervise test, to be assured that the line was properly tested before put into operation.

Numerous other pipe lines for both oil and gas have been before the Board, which involves the examination of plans by Board's Engineers.

The Engineering Department wishes to express its appreciation of the co-operation extended to it at all times during the past year by officials and engineers of the Provincial Highways Departments, Municipalities, Railways, and Pipe Line Companies.

CONTRIBUTIONS FROM RAILWAY GRADE CROSSING FUND

Protection	Location	Railway	Per cent	Contributions \$ cts.
Two flashing light signals and one bell, with additional light units.	St. Thomas Street, Joliette, Mileage 6-46, St. Gabriel Sub., Que.	C.P.R.	40	2,532 66
Two flashing light signals and one bell, with two additional light units.	Alma Street, in the Village of Hebertville, Que.	C.N.R.	40	2,260 00
Improve sight lines.	First crossing west of the station at Cassils, Mileage 74, Brooks Sub., Alta.	C.P.R.	40	30 40
Improve sight lines.	Route No. 43 in the Parish of St. Norbert, Mileage 68-1, Grand'mere Sub., Que.	C.N.R.	40	338 33
Two flashing light signals and one bell.	Highway No. 12, first public crossing just north of the station at Cambridge East, Mileage 68-9, Bala Sub., Ont.	C.N.R.	40	1,920 00
Two flashing light signals and one bell.	Crossing at Mileage 35-17, Cascapedia Sub., west of Nouvelle Station, St. Jean l'Evangeliste, County of Bonaventure, Province of Que.	C.N.R.	40	1,958 12
Two flashing light signals and one bell.	St. Jean Street, City of Longueuil, Que.	C.N.R.	40	1,600 00
Raise gate tower and provide an audible signal in gate tower.	St. Charles Street, Town of Dorion, Mileage 24-54, Cornwall Sub., Que.	C.N.R.	40	1,030 00
Two flashing light signals and one bell.	Crossing at Highway No. 98, about 500 feet west of Pelton Tower, Mileage 6-20, No. 1 Subdivision, Ontario.	C. & O. Ry.	40	2,260 00
Construction of standard guard fence.	Crossing of Highway No. 2 near Creditville, Mileage 42-73, Dundas Sub., Ont.	C.N.R.	40	50 00
Raise approaches.	Crossing of highway in the Municipality of St. Jules de Maria, County of Bonaventure, Mileage 57-23, Cascapedia Sub., Que.	C.N.R.	40	1,225 00
Two flashing light signals and one bell, in lieu of manually operated gates.	Bourbonniere Street, Montreal, P.Q.	C.N.R.	40	3,000 00
Two flashing light signals and one bell, and special circuits, in lieu of bell and wig-wag.	Mara Street in the Town of Beaverton East, Mileage 22-64, Midland Sub., Ont.	C.N.R.	40	1,940 00
Overhead bridge.	Highway No. 1, Northeast quarter of Sec. 3, Twp. 13, Rge. 6, W4M, Mileage 3-78, Brooks Sub., Alberta.	C.P.R.	40	16,000 00
Improve approaches.	Crossing of highway in the Township of Chinguacousy, County of Peel, Mileage 22-11, Brampton Sub., Ont.	C.N.R.	40	1,180 00
Improve approaches.	Crossing of Highway in the Township of Chinguacousy, County of Peel, Mileage 25-03, Brampton Sub., Ont.	C.N.R.	40	600 00
Move and raise danger sign and bell.	First public crossing north of the station of North Hatley, Mileage 12-3, Newport Sub., Que.	C.N.R.	40	80 00
Improve sight lines.	Crossing at Mileage 90-35, Yale Sub., B.C.	C.N.R.	40	52 18
Two electric short arm gates with flashing light signals and bell, in lieu of manually operated gates.	Crossing at Archibald (Montcalm) Street, in the City of St. Boniface, Mileage 124-52, Keewatin Sub., Que.	C.P.R.	40	28,000 00
Two flashing light signals and one bell.	Notre Dame Street, in the Town of St. Felicien, in the Prov. of Que.	C.N.R.	40	33,060 00
Two flashing light signals and one bell.	Crossing on Montrose Road, being the second crossing west of Stamford, Mileage 3-32, Welland Sub., Ont.	C.N.R.	40	2,300 00

CONTRIBUTIONS FROM RAILWAY GRADE CROSSING FUND

Protection	Location	Railway	Per cent	Contributions \$ cts.
Two flashing light signals and one bell with special circuits.....	Crossing at Highway No. 33 (Sulpicien Street) in the Parish of L'Epiphanie, County of L'Assomption, Mileage 12-5, L'Assomption Sub., Que.....	C.N.R.....	40	2,560 00
Overhead bridge.....	Divert Highway No. 17 over Railway in Section 26, Twp. of Victoria, District of Algona, Ont.....	C.P.R.....	40	42,000 00
Two flashing light signals and one bell.....	Crossing of Highway No. 2, in the City of Calgary, Mileage 4-9, Red Deer Sub., Alta.....	C.P.R.....	40	3,000 00
Two flashing light signals and one bell.....	Murdock Avenue, City of Noranda, Que.....	C.N.R.....	40	2,190 00
Two flashing light signals and one bell.....	Murdock Avenue, City of Noranda, Que.....	Nipissing Central Railway	40	1,860 00
Overhead bridge.....	Northwest quarter of Section 27, Twp. 16, Rge. 5, W2M, at Mileage 1-6, Indian Head Sub., Sask.....	C.P.R.....	40	52,000 00
Two flashing light signals and one bell.....	Northeast quarter of Sec. 8, Twp. 24, Rge. 25, W4M, Mileage 23-3, Strathmore Sub., Alta.....	C.P.R.....	40	3,000 00
Two flashing light signals and one bell.....	Between the Southeast quarter of Sec. 14, Twp. 24, Rge. 25, W4M, and the Northeast quarter of Sec. 11, Twp. 24, Rge. 25, W4M, Mileage 20-0, Strathmore Sub., Alta.....	C.P.R.....	40	3,600 00
Overhead bridge.....	Across Trans-Canada Highway in Lot 9, Con. 5, Twp. of Hellam, Mileage 1-01, Thessalon Sub., Ont.....	C.P.R.....	40	32,000 00
Two flashing light signals and one bell.....	Crossing at St. Charles North Road, in the Municipality of Quebec West, Mileage 3-77, Lariat Sub., Que.....	C.N.R.....	40	1,680 00
Two flashing light signals and one bell.....	Crossing of Highway No. 1 at Headingly, Mileage 9-66, Glenboro Sub., Man.....	C.P.R.....	40	3,360 00
Two flashing light signals and one bell.....	Crossing of Route No. 2, in the Parish of St. Leonard, Mileage 80-35, Grand Falls Sub., N.B.....	C.N.R.....	40	1,594 46
Two flashing light signals and one bell.....	Crossing of Route No. 11, at Mileage 96-81, St. Agathe Sub., Que.....	C.P.R.....	40	2,680 00
Two flashing light signals and one bell.....	Government Road, in the Town of Rainy River, Mileage 143-21, Fort Frances Sub., Ont.....	C.N.R.....	40	6,720 00
Two flashing light signals and one bell.....	Parkdale Avenue, in the City of Ottawa, Mileage 0-4, Carleton Place Sub., Ont.....	C.P.R.....	40	2,440 00
Two flashing light signals and one bell.....	At intersection of Victoria Ave. and Park St., Regina, Sask.....	C.N.R.....	40	4,120 00
Two flashing light signals and one bell.....	Industrial Street, on the line between the City of Chatham and the Twp. of Raleigh, Mileage 65-82, Windsor Sub., Ont.....	C.P.R.....	40	2,265 00
Two flashing light signals and one bell in lieu of existing protection.....	Bogleman's Crossing, in the Town of Truro, N.S., Mileage 62-75, Bedford Sub.....	C.N.R.....	40	280-0
Two flashing light signals and one bell in lieu of existing protection.....	Willow Street, in the Town of Truro, N.S., Mileage 1-39, revised line. Mileage 0-16, Camrose Sub., Alberta.....	C.N.R.....	40	81,600 00
Underpass.....				

Two flashing light signals and one bell, with special circuits.....	Crossing of the highway at St. Jovite, Mileage 65-08, St. Agathe Sub., Que.....	C.P.R.....	40	3,720 00
Two flashing light signals and one bell.....	Crossing of Garson Road, Mileage 1-3, Sudbury Terminals Sub., Ont.....	C.N.R.....	40	1,600 00
Two flashing light signals and one bell, with special circuits.....	Highway No. 10, at Holland Centre, Mileage 53-7, Owen Sound Sub., Ont.....	C.P.R.....	40	3,800 00
Improve approaches.	Crossing of Lorne Ave. in Nutana, Mileage 59-3, Asquith Sub., Sask.....	C.N.R.....	40	175 00
Two flashing light signals and one bell.....	Highway No. 34, in the Municipality of the Twp. of Ditchfield-Spaulding, County of Frontenac, Que.....	C.P.R.....	40	2,510 00
Two flashing light signals and one bell.....	Crossing of Highway No. 8, west of Lachute, Mileage 46-11, Lachute Sub., Que.....	C.P.R.....	40	2,520 00
Two flashing light signals and one bell.....	Highway No. 19A, in the Town of St. Tite, County of Laviolette, Que.....	C.N.R.....	40	2,240 00
Two flashing light signals and one bell.....	Highway No. 34, in the Twp. of West Ferris, District of Nipissing, at Mileage 57-39, Alderdale Sub., Ont.....	C.N.R.....	40	1,530 00
Two flashing light signals and one bell.....	Highway No. 2 at St. Rose du Degele, Mileage 67-87, Temiscouata Sub., Que.....	C.N.R.....	40	2,200 00
Two flashing light signals and one bell.....	Highway No. 2, near Vauban Station. Mileage 32-6, Temiscouata Sub., Que.....	C.N.R.....	40	2,200 00
Two flashing light signals and one bell and two short arm gates.....	Crossing at Neebing Avenue, Mileage 6-50, Kasheba Sub., Ont.....	C.N.R.....	40	6,800 00
Two short arm gates, two flashing light signals and one bell, in lieu of existing watchman, at Tupper Street: Two short arm gates, two flashing light signals and one bell, in lieu of existing watchman at Main Street.....	Tupper Street, in the City of Portage la Prairie, and Main Street in the City of Portage la Prairie, Manitoba.....	C.P.R.....	40	18,920 00
Two flashing lights and one bell, two short arm gates, in lieu of existing wig-wag.....	Crossing of Renfrew Street, in the City of Vancouver, B.C.....	C.N.R.....	40	2,720 00
Two flashing light signals and one bell.....	Crossing at Highway No. 9A, in the Municipality of St. Jacques le Mineur, Que.....	Napierville Junction Ry.....	40	2,595 00
Two flashing light signals and one bell.....	Southwest quarter of Section 16, Twp. 24, Rge. 27, W4M, on the north-west quarter of Sec. 19, Twp. 24, Rge. 27, W4M, at Mileage 119-2, Drumheller Sub., Alberta.....	C.N.R.....	40	4,280 00
Subway.....	Woodbine Avenue, Toronto.....	C.N.R.....	—	150,000 00
Subway.....	Dufferin Street, Toronto.....	C.P.R.....	—	150,000 00
Two flashing light signals and one bell.....	Baldwin Street, in the Town of Barrie, Ont.....	C.N.R.....	40	3,320 00
Two flashing light signals and one bell.....	Crossing of Highway No. 9A, in the Municipality of the Village of Napierville, P.Q.....	Napierville Junction Ry.....	40	3,195 00
Two automatic short arm gates, in addition to protection already installed.....	Crossing of the Kamloops-Tranquille Highway, at Mileage 1-07, Thompson Sub., B.C.....	C.P.R.....	40	4,045 00
Widen highway and install two flashing light signals and one bell.....	Crossing at the southwest quarter of Sec. 30, Twp. 24, Rge. 28, W4M, and the Northwest quarter of Sec. 19, Twp. 24, Rge. 28, W4M, Mileage 120-3, Three Hills Sub., Alberta.....	C.N.R.....	40	3,960 00
Two flashing light signals and one bell.....	Victoria Road, in the City of Sydney, N.S.....	S. & L. Ry.....	40	2,800 00

CONTRIBUTIONS FROM RAILWAY GRADE CROSSING FUND

Protection	Location	Railway	Per cent	Contributions
				\$ cts.
Improve approaches and relocate signals.....	Crossing of the Guelph Line Road, in the Twp. of Nelson, Mileage 30-8, Oakville Sub., Ont.....	C.N.R.....	40	2,340 00
Two flashing light signals and one bell.....	Crossing of St. Simon Road, being the first public crossing east of the station at Ste. Madeleine, Mileage 48-37, St. Hyacinthe Sub., Que.	C.N.R.....	40	2,160 00
Two flashing light signals and one bell and two short arm gates, in lieu of the two wig-wags and bells.....	Crossing of Tecumseh Road, (Highway No. 39), Mileage 99-13, Chatham Sub., Ont.....	C.N.R.....	40	8,600 00
Improve sight lines.....	Crossing of the highway in Lot 15, between Con. 10 and 11, in the Twp. of Bayham, Mileage 97-67, Cayuga Sub., Ont.....	C.N.R.....	40	400 00
Two flashing light signals and one bell.....	Crossing of Highway No. 27, in the Municipality of Eaton, County of Compton, Que.....	C.P.R.....	40	3,250 00
Two flashing light signals and one bell, in lieu of existing bell and illuminated danger sign.....	Crossing of Highway No. 2A in the Parish of St. Philippe de Nari, Mileage 33-6, Montmagny Sub., Que.....	C.N.R.....	40	1,380 00
Two flashing light signals and one bell.....	Crossing of the Charlesbourg-Loretteville Highway, Mileage 5-12, Batiscan Sub., Que.....	C.N.R.....	40	1,860 00
Two automatic short arm gates, two flashing light signals and two bells, in lieu of existing mechanically operated gates.....	118th Avenue, City of Edmonton, Alta.....	C.N.R.....	40	8,800 00
Two flashing light signals and one bell.....	Crossing at Highway No. 6, at Ste. Marie de Sayabec, Mileage 77-5, Matapedia Sub., Que.....	C.N.R.....	40	2,080 00
Two flashing light signals and one bell.....	Crossing at Highway No. 25A, Mileage 100-1, Montmagny Sub., Que.	C.N.R.....	40	1,800 00
Two flashing light signals and one bell, two stop signs, and two flagging switches, one stop sign, and one flagging switch, each side of crossing, in lieu of protection installed.....	Highway No. 4, in the Municipality of the Village of Howick, Chateauguay County, Massena Sub., Que.....	C.N.R.....	40	2,700 00
Two flashing light signals and one bell.....	Crossing of Avenue "A", in the City of Saskatoon, Sask.	C.P.R.....	40	2,200 00
Improve sight lines.....	Highway No. 44, in the Municipality of Riviere du Loup (Upper) County of Maskinonge, Mileage 62-0, Trois Rivières Sub., Que.....	C.P.R.....	40	3,760 00
Two flashing light signals and one bell.....	Crossing of the highway at Mileage 18-46, Brasseur Sub., Alta.....	C.N.R.....	40	100 00
Two flashing light signals and one bell.....	Crossing of Highway No. 45, in the Municipality of the Village of Barraute, Abitibi East County, Mileage 18-53, Amos Sub., Que.....	C.N.R.....	40	2,800 00
Two flashing light signals and one bell, with one additional signal.....	Crossing of Highway No. 63, in the Municipality of the Town of La Sarre, Abitibi West County, Mileage 23-04, Macamic Sub., Que.....	C.N.R.....	40	2,880 00
Two flashing light signals and one bell.....	Crossing of Highway No. 58, at Welland Junction, Mileage 18-02, Cayuga Sub., Ont.....	C.N.R.....	40	2,260 00
Two flashing light signals and one bell.....	Crossing of Highway No. 12, two miles north of the station at Brechin, Ont. (East), Mileage 74-4, Bala Sub., Ont.....	C.N.R.....	40	1,860 00
Improve sight lines.....	Crossing of Highway No. 2A in the Parish of St. Andre, County of Kamouraska, Mileage 16-34, Montmagny Sub., Que.....	C.N.R.....	40	60 00

Improve Sight lines.....	C.N.R.....	40	20 00
Two flashing light signals and one bell	C.N.R.....	40	1,920 00
Two flashing light signals and one bell	C.N.R.....	40	4,400 00
Two flashing light signals on gates.....	C.P.R.....	40	840 00
Two flashing light signals and one bell	C.P.R.....	40	2,080 00
Shorten approach circuits of protection	C.P.R.....	40	4,100 00
Two flashing light signals and one bell	C.N.R.....	40	360 00
Overhead bridge.....	C.N.R.....	40	2,520 00
Two flashing light signals and one bell	C.P.R.....	40	48,000 00
Improve grade of approaches.....	C.P.R.....	40	3,170 00
Improve sight lines.....	C.N.R.....	40	110 00
Improve sight lines.....	C.N.R.....	40	440 00
Two flashing light signals and one bell	C.N.R.....	40	250 00
Two flashing light signals and one bell, in lieu of existing wig wag.....	C.P.R.....	40	4,680 00
Two flashing light signals and one bell, with short arm gates, in lieu of existing wig wag.....	C.P.R.....	40	2,455 00
Two flashing light signals and one bell	C.N.R.....	40	5,600 00
Two flashing light signals, two short arm gates and one bell.....	C.N.R.....	40	2,260 00
Improve sight lines.....	G.N.R.....	40	4,580 00
Improve sight lines.....	C.P.R.....	40	20 00
Three flashing light signals and one bell.....	C.P.R.....	40	160 00
Two flashing light signals and one bell.....	C.P.R.....	40	3,460 00
Raise approaches.....	C.N.R.....	40	2,240 00
Raise approaches.....	C.N.R.....	40	240 00
Improve sight lines.....	C.N.R.....	40	240 00
	C.N.R.....	40	240 00

Crossing of Provincial Highway No. 22, in the Municipality of Ascot, County of Sherbrooke, Mileage 42-09, Sherbrooke Sub., Que.....

Crossing of Lansdowne Avenue (Highway No. 94), in the Town of Callander, Mileage 107-5, Huntsville Sub., Ont.....

Crossing of Highway near Rosedale, Mileage 64-5, Yale Sub., B.C.....

Crossing of Richmond St., in the City of London, Ont.....

Crossing of first public crossing east of the station of Erickson, Mileage 63-9, Nelson Sub., B.C.....

Crossing of Highway No. 41 and the Three Rivers Sub., in the Parish of St. Genevieve de Berthier, in County of Berthier, Que.....

Crossing of Park and Westcott St., in the City of Peterborough, Mileage 30-54, Lakefield Sub., Ont.....

Crossing of the first crossing west of the station of Riviere Beaudette, Mileage 43-48, Cornwall Sub., Que.....

At revised Highway No. 11 in Lot 33, Con. 14, Twp. of West Ferris, Mileage 112-82, North Bay Sub., Ont.....

Crossing at Verrier, Township of Caldwell, Nipissing District, Ont., Mile 33-7, Cartier Sub.....

Crossing at Hepworth, County of Bruce, Ont., Mileage 2-98, Warton Sub.....

Crossing at Mileage 24-6, Newmarket Sub., Township of King, Ont. Highway No. 5, at Mileage 25-6, Dunnville Sub., P.Q.....

Winchester Ave., St. Luc Branch, Montreal Terminals, Que.....

Highway No. 7, in the Village of Locust Hill, Mileage 80-13, Peterborough Subdivision, Ont.....

Highway No. 17, near Jelly, Mileage 16-54, Keshabowic Sub., Ont.....

Highway No. 12, south of Brechin, Mileage 71-6, Bala Sub., Ont.....

Sperling Ave., in the Mun. of Burnaby, Mileage 150-1, Second Sub., B.C.....

Highway No. 19B, in the Municipal Village of St. George, County of Laviolette, Mileage 20-94, Piles Sub., Que.....

Highway No. 19, in the Municipality of the Parish of St. Jacques des Piles, County of Laviolette, Mileage 25-05, Piles Sub., Que.....

Monaghan Road, in the City of Peterborough, Mileage 25-21, Peterborough Sub., Ont.....

Highway No. 12, near Uptergrove, Mara Twp., Mileage 37-96, Midland Sub., Ont.....

Indiana Road, in the Twp. of Seneca, County of Haldimand, Mileage 48-69, Dunnville Sub., Ont.....

Stoney Creek Road, in the Twp. of Seneca, County of Haldimand, Mileage 53-64, Dunnville Sub., Ont.....

Highway at Mileage 54-42, Dunnville Sub., in the Twp. of Seneca, County of Haldimand, Ont.....

THE STATEMENT BELOW SHOWS THE DIFFERENT WORKS WHICH WERE APPROVED FOR CONSTRUCTION BY ORDER OF THE BOARD ON RECOMMENDATION OF THE ENGINEERING DEPARTMENT AFTER STUDY OF THE APPLICATIONS AND PLANS, CHECKING OF ESTIMATES, INVESTIGATION OF COMPLAINTS AND ACCIDENTS, AND IN MANY CASES INSPECTION OF THE GROUND AND CONFERENCES WITH THE INTERESTED PARTIES DURING THE YEAR 1952.

Province	Highway Crossings Approved																														Total					
	Highway Crossings	Widen Crossings	Highway Crossings Closed	Construction and Operation over Branch and Industrial Spurs	Pedestrian Crossings	Remove Overhead Bridge	Bridges and Subways Approved	Approval of Operation over & under Bridges	Highway Diversion	Less Than Standard Clearance	Interlocking Plants and Changes to Interlocking Plants Approved	Operation Through Interlocking Plants	Crossings Protected by Flashing Light Signals and Bells	Changes to Operating Circuits of Flashing Light Signals, and Bells, and Wig Wags	Electrically operated Gates and Flashing Lights	Wire Crossings	Water, Gas, Oil and Sewer Pipes Over and Under Railways	Establish Sight Lines	Location of Telephone Lines	Exempt from Fencing and Cattle Guards	Abandonment of Operation of Railway Line	Approval and Changes to C.T.C. and Automatic Block Signals	Pipes under Company Pipe Lines	Location of Pipe Line, Oil or Gas	Transportation of Oil or Gas Through Pipe Lines	Route Map, Oil or Gas	Drawbridges Fixed	Operation Through Railway Tunnel	Relocate Railway	Railway Connections		Carriage of Traffic	Construction of Oil Pipe Lines under Rivers	Construction of Snow Sheds and Tunnels	Location of Railway	
B.C.	25	4	5	10	7	1	4	3	4	3	4	3	4	3	3	3	3	2	1	8	2	1	8	2	22	1	1	1	2	1	1	1	12	1	121	
Alta.	39	5	9	7	48	1	1	2	6	4	1	1	6	4	1	3	3	3	3	12	4	7	13	2	4	2	1	3	1	1	1	3	1	13	1	200
Sask.	27	3	2	8	5	1	1	3	2	2	5	5	2	2	2	2	2	2	1	68	1	2	4	1	4	1	1	1	1	1	1	1	1	1	1	141
Man.	33	2	5	7	20	2	5	2	2	2	5	2	2	1	4	4	4	2	1	40	1	1	3	3	3	3	3	3	3	3	3	3	3	3	127	
Ont.	66	4	22	32	19	6	19	20	38	27	2	2	38	27	2	2	2	23	11	21	5	5	29	39	2	39	2	1	1	1	1	1	11	11	429	
Que.	30	2	5	13	7	3	7	2	35	9	1	4	11	1	1	1	1	4	11	1	2	6	10	1	10	1	2	2	2	2	2	2	5	2	2	185
N.B.	7	1	1	1	1	1	1	1	6	1	1	1	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	
N.S.	2	2	2	1	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	11	
P.E.I.	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	9	
Nfld.	234	35	24	49	5	1	79	108	18	30	43	25	96	42	10	3	36	1	27	22	135	7	44	7	91	6	1	1	1	2	8	8	3	41	3	1,246

Approval of Route Map—Gas—From the vicinity of Pouce Coupe in the Province of Alberta, to a point in the vicinity of the City of Vancouver, B.C., including a branch line from a point near the Town of Abbotsford, to a point on the International Boundary in the vicinity of the Town of Huntingdon, B.C.—approximately 719 miles.

APPENDIX E"

OTTAWA, Ontario,
February 9th, 1953.

E. R. HOPKINS, Esq.,
Secretary,
Board of Transport Commissioners,
OTTAWA, Ontario.

DEAR SIR:

1. Herewith, the Annual Report of the Operating Department for the year ended December 31st, 1952.

2. The accomplishment of the work, hereunder, described, has necessitated the travelling of 475,884 miles by Officers of this Department.

3. During the year 1952 approximately 29,800,000 passengers travelled on Canadian Railways; the passenger train mileage for the year totalling approximately 48,700,000 miles.

4. PART I—OPERATING

Accidents attended by Loss of Life or Personnal Injury

STATISTICS

<i>Accidents—</i>	
Total accident reports received from railways and investigated.....	3,613
Total persons killed.....	404
Total persons injured.....	3,996
<i>Fatalities—</i>	
Passengers.....	5
Employees.....	77
Trespassers and Others (includes fatalities due to Highway Crossing Accidents).....	322
Total.....	404
<i>Injuries—</i>	
Passengers.....	614
Employees.....	2,646
Trespassers and Others (Includes injuries due to Highway Crossing Accidents).....	736
Total.....	3,996
<i>Highway Crossing Accidents—</i>	
Accidents.....	463
Persons Killed.....	201
Persons Injured.....	598

Detailed statistical data regarding accidents during the year 1952 is given in statements Nos. 1 to 5 (inclusive), appended hereto.

REMARKS

By direction of the Board, an informal conference was held at Ottawa during the year with representatives of the railways and the Railway Brotherhoods. The main purpose of the conference was to explore ways and means of reducing serious railway accidents. Among the subjects listed in the Agenda relating to this question were the following:

1. "A Sense of Responsibility" on the part of train service employees.
2. Matters relating to operating rule examination books.
3. Oral rules examinations and the necessity for periodic re-examination.
4. Provision for periodical attendance at Rules Instruction Classes.

5. The effective enforcement of Items (3) and (4).
6. Importance of adequate rest periods for train service employees, in the interest of accident prevention.
7. Consideration of matters involving compliance with the provisions of the Uniform Code of Operating Rules and Air Brake Rules.
8. The necessity for effective training of new employees in positions governed by the Uniform Code of Operating Rules.

As the result of this Conference, the Board issued General Order No. 782, dated December 18th, 1952, prescribing—

- (a) the type of examination books to be written by various classes of employees governed by the Uniform Code of Operating Rules,

AND

- (b) requiring railway employees to pass an oral examination in the Operating Rules at intervals not exceeding three years.

The Board also directed that definite steps be taken to control the hours of service for train service employees in order to avoid the possibility of such employees being held on duty for excessive periods without rest.

Train operations, condition of Stations and passenger equipment are under constant review by the Board's inspection staff to ensure compliance with the Board's regulations and also the provision of adequate transportation facilities for the public.

For the purpose of facilitating the inspection work of this Department in the Province of Quebec, the Board opened a District Office at Montreal during the year.

5.

PART II—MECHANICAL

STATISTICS

Motive Power—

Number of Locomotives.....	5,537
Reports of Hydrostatic Tests, Removal of Lagging and Dome Caps, Testing of Staybolts, Washouts, Boilers and Appurtenances, etc., received.....	66,787

Inspection of Motive Power—

Locomotive Inspections.....	8,614
Locomotives found defective.....	2,147
Defects.....	3,450

Locomotive Boilers—

(Application for extension of time for removal of flues)	
Applications received from railways.....	315
Internal inspections made.....	306
Applications granted.....	295
Applications refused.....	11
Applications withdrawn after inspection was made.....	—

Stationary Boilers—

Number of stationary boilers.....	1,288
Inspection reports.....	2,767
Inspections made.....	391
Fire protective appliance inspection reports.....	1,658

Safety Appliance and Equipment Inspections—

Freight cars inspected.....	99,441
Freight cars found defective.....	8,206
Defects.....	11,416
Passenger coaches inspected.....	8,910
Passenger coaches found with defects.....	575
Defects.....	855

Inspection of Freight Cars for Correct Tare Weight—

Number of cars inspected.....	8,935
Number of cars found overdue for weighing for tare.....	244

Inspection of Passenger Cars for Improper Air Brake Piston Travel—

Number of cars inspected.....	4,716
Number of cars with improper piston travel.....	58

Inspection of Freight Cars for Improper Air Brake Piston Travel—

Number of cars inspected.....	34,939
Number of cars with improper piston travel.....	2,604

Detailed statistical data for the year 1952 is given in statements Nos. 6 to 9 (inclusive), appended hereto.

REMARKS

Inspection of Motive Power, Car Equipment and Safety Appliances

This work is carried out under the provisions of Section 298 of the Railway Act and the Board's General Orders issued pursuant thereto. In this connection, reference is made to detailed statements 6 to 9 (inclusive).

The safety appliances, wheels, trucks, and draft-gear of passenger and freight equipment have been given special attention by the Board's Inspectors.

Similarly, passenger train lighting, air-conditioning and cleanliness, has been given close attention.

Inspectors were active in the examination of all types of motive power and rolling stock.

During the year, increased attention has been devoted to diesel-electric motive power units and a country-wide survey to determine the efficiency of the draft-gear installed on these locomotives was undertaken to determine the necessity or otherwise of additional safety regulations.

Locomotive Headlights and Equipment

During the year, in conjunction with the major railways and the Railway Brotherhoods, extensive tests were conducted to determine comparative advantages in the beam range of various types of headlight bulbs. Effective improvements in the light emission have followed these tests.

Tests were also conducted to determine the suitability of dimming devices on yard locomotives; this survey is progressing.

Air Operated Horns

Experiments are continuing in connection with multi-tone air-operated horns required on locomotives other than steam.

Train Air Brake Tests

The procedure in connection with train air brake tests has been revised to include a Report Form—B.T.C. 738—Train Air Brake Tests.

The new form is supported by a classified list of train air brake test rule infractions. It will be used to bring conditions disclosed by Board's Inspectors to the immediate attention of railway officers at the managerial as well as the local level. It is anticipated that this inspection service will have a beneficial effect on the performance of air brakes on en route trains.

Motive Power

The following tables indicate the number of steam and diesel locomotives on the two major Canadian railroads:

Year	Steam Locomotives					
	Coal Fired		Oil Fired		Total	
	C.N.R.	C.P.R.	C.N.R.	C.P.R.	C.N.R.	C.P.R.
1947.....	2,407	1,584	100	122	2,507	1,706
1948.....	2,391	1,617	112	130	2,503	1,747
1949.....	2,319	1,490	190	230	2,509	1,720
1950.....	2,224	1,429	249	261	2,473	1,690
1951.....	2,188	1,398	252	266	2,440	1,664
1952.....	2,134	1,361	283	261	2,417	1,622

Year	Diesel-Electric Locomotives					
	Road Locos.		Switchers		Total	
	C.N.R.	C.P.R.	C.N.R.	C.P.R.	C.N.R.	C.P.R.
1947.....	2	0	73	55	75	55
1948.....	30	13	81	71	111	84
1949.....	30	33	118	99	148	132
1950.....	56	87	121	103	177	190
1951.....	120	117	160	115	280	232
1952.....	202	159	193	133	395	292

Perusal of motive power inventories on major Canadian railways indicates a definite trend toward the increased use of diesel electric locomotives. While the displacement of the steam locomotive is gradual, there is no doubt that its traditional importance in the industry is being challenged.

Buttonhead Crown Bolts

As indicated in statement No. 9, a number of instances of crown sheet damage occurred due to low water. No boiler explosions or serious injuries to train service employees were involved.

This favourable situation can be attributed, in good measure, to the existence of the method of supporting crown sheets by buttonhead bolts.

Practically all locomotives of the major railways, as directed by the Board, are so equipped and the results have demonstrated its practical worth as a safety measure.

Hand-Brakes

During the year important tests were conducted in conjunction with the major railways regarding the emergency stopping of locomotives other than steam. The development of suitable hand-brake equipment is presently receiving close attention from manufacturers as well as the railways and this department.

Administration—Classification of Equipment Defects

Increased railway activity, new motive power types, advances in design, construction and operation of rolling stock, together with higher safety standards, impose a variety of new demands on the Operating Department.

To improve the equipment inspection services and at the same time cope with the increased administrative load, classified lists of defect items have been prepared and adopted. These lists incorporate the terms of relevant Board Orders and cover potential dangerous defects in connection with steam locomotives, boilers, diesel and electric locomotives, steam generators, freight and passenger train cars, work equipment and train air brake testing. Appropriate reporting, record keeping and statistical procedures have also been established.

Revision of General Orders

General Orders administered by this Department are being revised in conformity with current developments.

The revision of General Order No. 102—Railway Safety Appliance Standards is nearing completion. The proposed Order will consolidate the numerous amendments to the existing Orders and gives recognition to additional desirable safety practices in connection with all types of motive power and rolling stock units.

Smoke Abatement

The problem of smoke abatement continues to receive the attention of the Department.

Inspection and Testing of Air Reservoirs, other than on Locomotives

Pursuant to General Orders Nos. 576 and 714, 4,701 report forms of inspection were filed and checked in compliance with the Regulations covering 4,783 air reservoirs.

6. PART III—INFLAMMABLE LIQUIDS, GASES AND EXPLOSIVES

Inflammable liquids and gases: Handling and Storage on and Adjacent to Railway Property

Under the provisions of General Order No. 716 and Circular No. 241, there were 336 applications received for approval of location and changes to installations. These, together with 51 applications in abeyance from the previous year, were investigated and disposed of as follows:

Cancelled.....	10
In Abeyance.....	45
Approved and Orders Issued.....	332
	<hr/> 387

The 332 applications which were approved covered one refinery and 302 bulk storage plants; 123 of which were new installations and 29 temporary loading facilities required for incoming oil wells pending determination of output or installation of permanent facilities.

The above applications include the railway companies' oil storage facilities for use of Diesel Motive Power as well as oil burning equipment.

Under the provisions of General Order No. 597, eleven applications were approved for the handling and storage of liquefied petroleum gases.

Particulars of installations for inflammable liquids and gases are as follows:

	Number of Companies Making Installations	Number of Installations	Number of Tanks Installed 1952	Total Storage Capacity (Imp. Gals.)
Inflammable Liquids.....	73	332	629	73,193,837
Inflammable Gases.....	11	11	11	242,000

Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight (Railway) and Specifications for Shipping Containers.

AND

Regulations for the Transportation by Express of Acids, Compressed Gases, Inflammables, Oxidizing Substances, Explosives, etc., and Specifications for Shipping Containers

During the year, arrangements were completed to consolidate these Regulations into one publication. The new publication entitled: "The Regulations for the Transportation of Explosives and Other Dangerous Articles in Rail Freight and Rail Express Service, including Specifications for Shipping Containers", is being issued on March 1st, 1953, to become effective June 1st, 1953, in accordance with the provisions of General Order No. 779. This will provide a more satisfactory means of promulgating these Regulations to shippers and railways.

The introduction of the system of Special Permits for extraordinary shipments has functioned satisfactorily. Thirty-one (31) Permits were issued during 1952.

Cylinders for the Handling of Compressed Gases

Manufacturers have continued their interest in the production of various types of compressed gas cylinders in Canada, as well as the importation of cylinders. During the year five Canadian firms were producing cylinders to C.R.C. Specifications 3E, 4B and 4BA, although one firm has since discontinued operations.

Cleaning of Stations and Disinfecting of Passenger Cars

The cleaning of stations and disinfecting of passenger cars, particularly with regard to tuberculosis patients, was the subject of conferences with the Department of National Health and Welfare and the railways, and resulted in the issuance of Regulations contained in General Order No. 778.

7.

PART IV—FIRE PREVENTION

Detailed statistics are shown in Statement No. 10 appended hereto, from which it will be noted 503 fires occurred during the fire season of 1952 within 14,907 miles of railway classified as forested territory. In addition, 129 fires were also reported as originating and burning in ties in the track which did not spread or cause damage other than to track ties.

RAILWAY FIRE PATROLS

The fire patrol requirements, under the terms of paragraph 29 of General Order No. 548, were addressed to all the railways concerned, including Quebec, North Shore and Labrador Railway which is under construction.

Statistics showing railway forested mileage upon which patrols are prescribed follow:

Total miles of railway classified as being in forested territory for fire protection purposes.....	14,907.23
Special section patrols prescribed on.....	5,133.54
Special Velocipede patrols prescribed on.....	114.90
Special power speeder patrols prescribed on.....	1,912.89
Other type special patrol prescribed on.....	254.00
Total miles on which special patrol prescribed.....	7,415.33
Total Special Patrolmen (estimated).....	931
Average number of miles of track per patrolman.....	7.96
Total miles in forested territory on which no special patrol required, detection, reporting, and extinguishing of fires being a part of the regular duties of the section forces and other employees.....	7,491.90

Weather Conditions

On the whole, weather conditions across Canada were favourable from a forest fire-fighters' viewpoint.

The Western portion of Newfoundland suffered from a high Spring hazard and the Fall hazard was abnormally long throughout the Western Provinces.

In the Western Provinces at freeze-up the water table was quite low, which might result in an early Spring high fire hazard.

Inspection

Under the co-operative arrangements inaugurated in 1912 with the various Dominion and Provincial Forest Services, 275 officers and men of such services were under appointment as Inspectors of the Board.

During the year, in co-operation with the Department of Lands and Forests, Province of Ontario, a short course of instruction in the inspection of fire protective appliances on locomotives was given to nineteen members of their staff, at the conclusion of which they received appointments with the Board as Locomotive Fire Appliance Inspectors. These appointees will facilitate the inspection of fire protective appliances and will enable such inspections to be carried out without undue delay when required.

Fireguard Requirements

In accordance with the requirements, 3,812.5 miles of fireguards were constructed or maintained in uncultivated lands (fenced grazing and wild lands) in non-forested sections of the Prairie Provinces.

FIREGUARDS, 1952

Railway	Mileage both sides of track to be accounted for exclusive of approved exemptions	Fireguard mileage constructed or maintained during year	Percentage completion
Canadian National.....	3,012.2	1,422.3	47.2
Canadian Pacific.....	3,327.2	2,383.4	71.6
Northern Alberta.....	17.5	15.8	90.0
	6,356.9	3,821.5	60.12

F. S. HARTLE,
Director of Operation.

STATEMENT NO. 1—PASSENGERS, EMPLOYEES AND OTHERS KILLED AND INJURED
ON RAILWAYS UNDER THE BOARD'S JURISDICTION FOR THE YEAR ENDED
DECEMBER 31, 1952

Name of Railway	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Canadian National.....	3	226	51	1,261	169	374	1,612	223	1,861
Canadian Pacific.....	1	362	23	1,339	123	253	1,860	147	1,954
Algoma Central & Hudson Bay.....		1	2	7	2	8	10	4	16
British Columbia Electric	1	1			2	6	7	3	7
Chesapeake & Ohio.....					4	6	7	4	6
Dominion Atlantic.....		1		6	1	8	12	1	15
Esquimalt & Nanaimo.....				3		4	5		7
Essex Terminal.....				1		2	3		3
Grand River.....		2		4	1		7	1	6
Great Northern.....		1		7	1	6	14	1	14
Lake Erie & Northern.....						3	3		3
London & Port Stanley.....		10		1		1	2		12
Michigan Central.....				2	6	7	12	6	9
Midland Railway of Mani- toba.....						2	1		2
Montreal & Southern Counties.....					2	8	6	2	8
New York Central.....		2		5	3	14	11	3	21
Niagara, St. Catharines & Toronto.....						7	6		7
Northern Alberta.....		5		6	2	3	14	2	14
Oshawa.....					1	3	2	1	3
Quebec Central.....		2		2	2	8	6	2	12
Sydney & Louisburg.....			1		1	1	3	2	1
Toronto, Hamilton & Buffalo.....				2	2	6	8	2	8
Toronto Terminals.....		1				6	2		7
Totals.....	5	614	77	2,646	322	736	3,613	404	3,996

STATEMENT NO. 2—PASSENGERS, EMPLOYEES AND OTHERS KILLED AND INJURED,
AND NATURE OF ACCIDENTS, FOR YEAR ENDED DECEMBER 31, 1952

Character of Accident	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Derailment.....		1	3	25	1	4	16	4	30
Collision head-on.....	101		11	64			14	11	165
Collision rear-end.....	59		9	16			15	9	75
Collision, Miscellaneous.....	7		2	11			3	2	18
Collision with cars account open switch.....	1			4	1	5	3	1	10
Equipment struck in yard during switching or transfer movement in- cluding sideswipes of individual equipment in yards.....			2	31			21	2	31
Sideswipe.....	8			15			10		23
Public highway crossing protected by gates.....					2	14	7	2	14
Public highway crossing protected by gates— automatic.....						2	2		2
Public highway crossing protected by bell.....					1	10	3	1	10
Public highway crossing protected by bell and wigwag.....	1			4	24	41	41	24	46
Public highway crossing protected by flashing light signals and bell...				3	22	46	39	22	49
Public highway crossing protected by watchman				1	1	10	7	1	11
Public highway crossing unprotected.....			1	25	150	441	364	151	466
Private crossing.....			1	6	20	45	49	21	51
Trespassing.....					97	70	166	97	70
Working on or about engine				324			321		324
Miscellaneous.....	25			406	1	10	438	1	441
Adjusting couplers, coup- ling and uncoupling.....			1	71			72	1	71
Run down by engine or car between stations.....			3	1			3	3	1
Handcar—accidents caus- ed by hand-car, motor or velocipede.....			4	108		2	70	4	110
Handcar, motor-car, velo- cipede struck by train...	1		9	45		1	34	9	47
Crawling under cars.....			1				1	1	
Crawling between cars, over couplers.....				10			10		10
Passing between cars, be- tween couplers.....			1				1	1	
Struck by engine or cars on adjoining track.....			1	30			31	1	30
Struck by switch stand, water spout, mail crane or other projection.....				25			25		25
Crushed between cars and buildings, lumber piles...			1	4			5	1	4
Explosion of locomotive boiler.....				3			2		3
Getting on and off passen- ger trains.....		96				6	102		102
Injured when taking coal or water.....				40			40		40
Rock slides, or other ob- structions on track.....	1		2	14			11	2	15
Rough coupling.....	8		1	61		5	67	1	74
Riding on pilot or foot- board of engine.....				8			8		8
Obstructions, overhead and on ground.....				15		2	17		17
Repairing cars on repair track when moved.....				1			1		1
Falling off top of car.....				26			26		26

STATEMENT NO. 2—PASSENGERS, EMPLOYEES AND OTHERS KILLED AND INJURED,
AND NATURE OF ACCIDENTS, FOR YEAR ENDED DECEMBER 31, 1952—*Conc.*

Character of Accident	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Falling between cars.....			2	14			16	2	14
Application and handling of air brakes, starting and stopping of trains, adjusting slack.....		31		153		3	176		187
Employees getting off train.....			1	284			285	1	284
Employees boarding train.....			4	152			156	4	152
Slipping on ice.....				58			58		58
Doors closing and other minor accidents in bag- gage cars and coaches..	1	253		160		4	416	1	417
Electrocuted.....			1		1	1	2	2	1
Run down by engine or cars at stations or in yards.....		2	9	38	1	1	51	10	41
Passing too close around end of string of cars....				1			1		1
Caught by engine or car while throwing switch..				1			1		1
Falling off side or end lad- ders of cars.....				85		1	86		86
Handbrake — accidents while working hand- brake.....			1	119		1	119	1	120
Handling freight or bag- gage.....				36			36		36
Loading and unloading O.C.S., materials.....				38		2	40		40
Work train equipment.....			2	14		1	15	2	15
Cars moved while being loaded or unloaded.....				4		2	6		6
Carmen working on or under cars on running track when moved.....				1			1		1
Chaining or unchaining cars.....				2			2		2
Coupling or uncoupling hose.....				26			26		26
Turning angle-cock.....			1	9			10	1	9
Coach window falling.....		3					3		3
Loads shifting in transit or switching.....				9			9		9
Falling or jumping off pas- senger train between stations.....	4	13	1	2			19	5	15
Cars running away not under control.....				30		5	23		35
Washout.....		3	1	3			1	1	6
Individual derailment of equipment in yard tracks			1	9		1	9	1	10
Caught between running boards.....				1			1		1
Totals.....	5	614	77	2,646	322	736	3,613	404	3,996

STATEMENT No. 3—PARTICULARS OF ALL HIGHWAY CROSSING ACCIDENTS WITH DESCRIPTION OF PROTECTION OR NON-PROTECTION IN EFFECT FOR THE YEAR ENDED DECEMBER 31, 1952

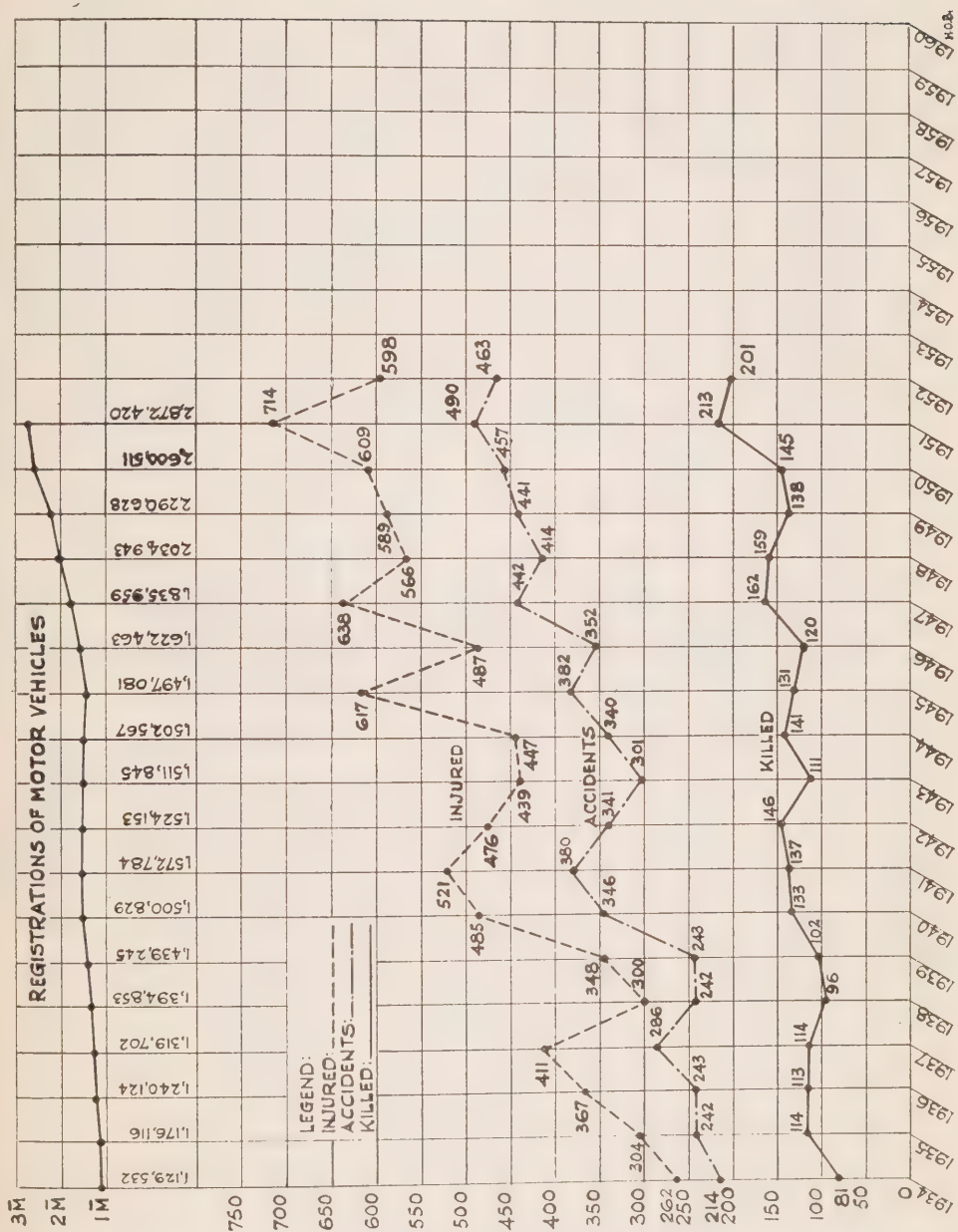
	Newfoundland			Prince Edward Island			Nova Scotia			New Brunswick			Quebec			Ontario			Manitoba			Saskatchewan			Alberta			British Columbia			Total		
	A.	K.	I.	A.	K.	I.	A.	K.	I.	A.	K.	I.	A.	K.	I.	A.	K.	I.	A.	K.	I.	A.	K.	I.	A.	K.	I.	A.	K.	I.			
Gates, Manual.....													1		2	6	2	12												7	2	14	
Gates, Automatic.....										1						1															2		2
Bell.....									2		4							1	1	6											3	1	10
Bell and Wigwags.....		1			4	2	3	1	1	1	1	1	11	9	17	21	12	21	1							2				2	41	24	46
Flashing Light Signals & Bell.....						1		1		3		3	16	13	13	13	7	18	1							4	10	3	2	3	39	22	49
Watchman.....													1		1	5	1	9	1											7	1	11	
Unprotected.....	3		5	1		2	8	7	10	14	7	20	60	34	81	145	58	172	27	9	35	37	20	38	45	8	67	24	8	29	364	151	466
Totals.....	3		5	2		3	15	9	18	17	8	25	89	56	114	192	81	246	30	9	38	37	20	38	49	8	77	29	10	34	463	201	598

	1948	1949	1950	1951	1952
Number of accidents which occurred at crossings protected by Gates, Manual.....					
Number of accidents which occurred at crossings protected by Gates, Automatic.....	8	10	9	9	7
Number of accidents which occurred at crossings protected by Bell.....					
Number of accidents which occurred at crossings protected by Bell and Wigwag.....	6	3	7	7	3
Number of accidents which occurred at crossings protected by Flashing Light Signals & Bells.....	40	59	57	53	41
Number of accidents which occurred at crossings protected by Automatic Highway Traffic Signals.....	10	19	22	26	39
Number of accidents which occurred at crossings protected by Watchman.....	1	2			
Number of accidents which occurred at crossings Unprotected.....	7	6	6	1	7
Totals.....	342	342	356	393	364
	414	441	457	490	463

STATEMENT No. 4—CONTRIBUTING FACTORS INVOLVED IN VARIOUS CLASSES OF CROSSING ACCIDENTS FOR YEAR 1952

	Accidents	Killed	Injured
<i>Motor Vehicles Struck by Train—</i>			
Daylight hours.....	163	96	173
Night hours.....	111	60	161
Total.....	274	156	334
<i>Horse-drawn or Other Vehicles Struck by Train—</i>			
Daylight hours.....	5	1	4
Night hours.....			
Total.....	5	1	4
<i>Pedestrians Struck by Train—</i>			
Daylight hours.....	19	11	9
Night hours.....	3	2	1
Total.....	22	13	10
<i>Motor Vehicles Running into Side of Train—</i>			
Daylight hours.....	39	9	59
Night hours.....	105	21	160
Total.....	144	30	219
<i>Accidents in which Track Cars Involved—</i>			
Daylight hours.....	17	1	30
Night hours.....	1		1
Total.....	18	1	31
<i>Total Number of Accidents—</i>			
Daylight hours.....	243	118	275
Night hours.....	220	83	323
Grand Total.....	463	201	598

STATEMENT No. 5—GRAPHIC CHART SHOWING NUMBER OF HIGHWAY CROSSING ACCIDENTS, INDICATING NUMBER KILLED AND INJURED



STATEMENT No. 6—DEFECTS ON FREIGHT CARS REPORTED BY THE BOARD'S INSPECTORS FOR THE YEAR ENDED DECEMBER 31, 1952.

	Number of Defects
Coupler and Parts.....	143
Height of Couplers.....	836
Truck and Spring Defects.....	1,967
Uncoupling Mechanism.....	222
Handholds.....	359
Sill Steps.....	616
Ladders.....	185
Running Boards.....	527
Handbrakes.....	690
Air Brake Cleaning Overdue or Cutout.....	1,035
Air Brake Defects except Piston Travel.....	1,341
Side Doors, etc.....	647
Overdue for Weighing for Tare.....	244
Improper Piston Travel.....	2,604
Total Defects.....	<u>11,416</u>

NUMBER OF FREIGHT CARS INSPECTED, SHOWING CARS DEFECTIVE, NUMBER OF DEFECTS, ALSO NUMBER OF CARS INSPECTED FOR OVERDUE FOR WEIGHING FOR TARE AND IMPROPER PISTON TRAVEL FOR THE YEAR ENDED DECEMBER 31, 1952.

Railway	Total cars inspected	Total cars defective	Total No. of defects	Cars Inspected	
				Overdue Tare	Improper piston Travel
Canadian National.....	51,021	3,910	5,479	4,760	17,215
Canadian Pacific.....	43,118	3,736	5,203	3,630	15,473
Miscellaneous.....	5,302	560	734	545	2,251
Total.....	99,441	8,206	11,416	8,935	34,939

STATEMENT NO. 7—DEFECTS ON PASSENGER CARS REPORTED BY THE BOARD'S INSPECTORS FOR THE YEAR ENDED DECEMBER 31, 1952

	Number of Defects
Coupler and Parts.....	32
All Truck Defects.....	60
Handholds, Sill Steps and Running Boards.....	45
Handbrakes.....	90
Air Conditioning Defects.....	27
Heating Systems.....	5
Drinking Water and Water Raising Systems.....	22
Car Lighting Defects.....	27
Condition of Car Body.....	184
Air Brake Cleaning Overdue.....	84
Air Brake and Signal Line Defects, except Piston Travel.....	208
Miscellaneous.....	13
Improper Air Brake Piston Travel.....	58
Total Defects.....	855

NUMBER OF PASSENGER CARS INSPECTED, SHOWING CARS DEFECTIVE, NUMBER OF DEFECTS, ALSO NUMBER OF CARS INSPECTED FOR IMPROPER PISTON TRAVEL FOR THE YEAR ENDED DECEMBER 31, 1952

Railway	Total cars inspected	Total cars defective	Total No. of defects	Cars Inspected
				Improper piston travel
Cznadian National.....	4,372	304	487	2,063
Canadian Pacific.....	4,471	266	363	2,629
Miscellaneous.....	67	5	5	24
Totals.....	8,910	575	855	4,716

STATEMENT No. 8—NUMBER OF LOCOMOTIVES INSPECTED, AND NUMBER OF DEFECTS ON RAILWAYS, FOR THE YEAR ENDED DECEMBER 31, 1952

Classification	Total Defects
Inspections or tests not made as required.....	12
Safety Appliances.....	284
Brake Equipment.....	445
Driving, Engine and Tender Truck Wheels; Centers, Tires and Axles.....	135
Lights.....	40
Draft Gear and Draw Gear.....	137
Whistles (Horns) Bells.....	50
Springs and Spring Rigging.....	336
Sanders.....	28
Cabs, Cab Windows, etc.....	69
Badge Plates.....	10
Fire Protective Appliances.....	175
Gauges—Steam and Air.....	77
Electric Meters—(Indicating Devices).....	2
Train Communication Signal.....	1
Running Defects—En Route Inspections.....	17
Flues and Tubes.....	3
Boiler Shell, Steam Dome, etc.....	75
Firebox Sheets.....	24
Crown Bolts, Stay Bolts.....	25
Water Glass.....	87
Gauge Cocks.....	35
Water Columns.....	7
Blow-off Cocks.....	98
Plugs and Studs.....	41
Washout Plugs and Pads.....	52
Injectors, Feed Water Pumps and Appurtenances.....	222
Safety Valves.....	27
Steam Pipes.....	55
Steam and Oil Valves.....	51
Throttle and Dry Pipe.....	81
Lubricators and Appurtenances.....	10
Lateral Motion.....	83
Ashpan Dumping Gear, Grate Shakers and Fire Doors.....	6
Reversing Gear.....	18
Crossheads, Guides, Pistons and Rods.....	119
Cylinders, Saddles, Steam Chests.....	16
Cylinder Cocks.....	22
Driving Boxes, Shoes and Wedges and Cellars.....	122
Side Rods and Crank Pins.....	15
Valve Motion.....	32
Frames.....	23
Trucks.....	49
Truck—Tender.....	102
Frames—Tender.....	17
Tenders.....	95
Stoker.....	6
Miscellaneous—Steam Locomotives.....	3
Internal Combustion Engines.....	1
Fire Extinguishers, Fire Fighting Equipment.....	1
Fuel Supply.....	4
Accident Prevention—Cleanliness.....	5
Total Defects.....	3,450

	Locomotives Inspected	Locomotives Defective	Total Defects
Canadian National.....	4,644	1,223	1,995
Canadian Pacific.....	3,389	820	1,252
Miscellaneous.....	581	104	203
Totals.....	8,614	2,147	3,450

STATEMENT No. 9.—STATEMENT OF BOILER EXPLOSIONS AND CROWN SHEETS DAMAGED FOR THE YEAR 1952

Railway	Date	Engine No.	Place	Remarks
Canadian National	January 20th	CN 2124	<i>Crown Sheets Damaged</i> Tyup, British Columbia	Crown sheet damaged due to low water.
Canadian National	April 18th	CN 2096	Yale Subdivision, Mileage 63, British Columbia	Crown sheet damaged due to low water.
Canadian National	September 8th	CN 94	Trenton, Ontario	Crown sheet damaged due to low water.
Canadian National	November 7th	CN 1014	Riviere du Loup, Quebec	Crown sheet damaged due to low water.
Canadian Pacific	February 20th	CP 3661	Kamloops Shop, British Columbia	Crown sheet damaged due to low water.
Canadian Pacific	June 8th	CP 1231	Swan, mileage 106-9, Winchester Sd., Ontario	Crown sheet damaged due to low water.
Canadian Pacific	Dec. 3rd	CP 5252	Leduc Subdivision, mileage 41-5, Alberta	Crown sheet damaged due to low water.

SUMMARIES

Boiler Explosions

Nil

Crown Sheets Damaged

Canadian National	4
Canadian Pacific	3
Total	<u>7</u>

STATEMENT No. 10.—SUMMARY OF REPORTS ON FIRES IN FOREST SECTIONS ORIGINATING WITHIN 300 FEET OF TRACK
ALONG RAILWAY LINES UNDER THE JURISDICTION OF THE BOARD, SEASON OF 1952

	Canadian National (Atlantic Region) (a)	Canadian National (Central Region) (b)	Canadian National (Western Region) (c)	Canadian Pacific (Eastern Region) (d)	Canadian Pacific (Prairie Region) (e)	Canadian Pacific (Pacific Region) (f)	Algoma Central and Hudson Bay	Northern Alberta	Great Northern	Miscel- laneous Railways (g)	Totals
<i>Fires of Railway Origin—</i>											
<i>Number by Causes—</i>											
Locomotive, Class A fires.....	25	15	17	8	10	23		15		1	99
Locomotive, Class B fires.....	19	16	26	38	27	20		9		1	162
Locomotive, Class C fires.....	4	7	4	6	11	5		1			46
Employees, Class A fires.....	2	3	3	1		2	1	1			13
Employees, Class B fires.....		7	9	6	1	3		2	1		29
Employees, Class C fires.....			4					2		4	10
Fusees, Class A fires.....		1	1			1					3
Fusees, Class B fires.....			4								4
Fusees, Class C fires.....											1
Burning smoking materials from trains				1							
Class A fires.....	5		6	1		1					13
Burning smoking materials from trains			7	2		3					14
Class B fires.....		2									
Burning smoking materials from trains											
Class C fires.....											1
Total, Class A fires.....	32	19	27	10	10	27	1	1		1	128
Total, Class B fires.....	19	25	46	46	28	26		17	1	1	209
Total, Class C fires.....	4	7	8	7	12	5		11		4	58
Total.....	55	51	81	63	50	58	1	29	1	6	395
<i>Areas burned (acres)—</i>											
Young forest growth.....	1,231	95	189	72	300	271		85	1	72	2,316
Merchantable timber.....		1	325	1	187	9		8			532
Slashing or old burn.....	2	157	1	26	31	9					226
Other classes of land.....	8	249	9,265	160	1,241	48		551		66	11,588
Total.....	1,242	502	9,780	259	1,759	337		644	1	138	14,662
<i>Value of Property Destroyed—</i>											
Young forest growth.....	\$ 1,286	\$ 191	\$ 3,546	\$ 205	\$ 605	\$ 349	\$	\$ 250	\$	\$ 144	\$ 6,576
Standing timber.....		2	603	28	180	54		92			959
Forest products.....		127		328							455
Other property.....	100	524	246	624	15	1,360		310		34	3,213
Total.....	1,386	844	4,395	1,185	800	1,763		652		178	11,203

<i>Known Causes other than Railway—</i>									
<i>Number of Causes—</i>									
Campers and Travellers, Class A fires.....	4	5	7	1		4	1		22
Campers and Travellers, Class B fires.....	3	2	7	7		5			24
Campers and Travellers, Class C fires.....			1	2	1				4
Settlers, Class A fires.....			1						1
Settlers, Class B fires.....		2							4
Settlers, Class C fires.....			4						4
Other known causes, Class A fires.....			2						2
Other known causes, Class B fires.....	3					2			5
Other known causes, Class C fires.....						1	1		2
Total, Class A.....	4	5	10	7		4	1		25
Total, Class B.....	6	4	7	7		9	1		33
Total, Class C.....			5	2	1	1	1		10
Total.....	10	9	22	10	1	14	2		68
<i>Areas burned (acres) —</i>									
Young forest growth.....	2	1	5	5		5			18
Merchantable timber.....	3	1				3			7
Slashing or old burn.....	1			3		1			5
Other classes of land.....	4	19	612	41	28	21	75		800
Total.....	10	21	617	49	28	30	75		830
<i>Value of property destroyed—</i>									
Young forest growth.....	4	10	4	27		2			47
Standing timber.....	45	21				1			67
Forest products.....									
Other property.....	2	53	140	15					210
Total.....	51	84	144	42		3			324
<i>Fires of Unknown Origin—</i>									
<i>Number—</i>									
Class A.....	13		1	1		6			21
Class B.....	6	2	6	1		2			17
Class C.....			1				1		2
Total.....	19	2	8	2		8	1		40
<i>Areas burned (acres) —</i>									
Young forest growth.....	6	1	3					30	40
Merchantable timber.....						2			2
Slashing or old burn.....			5						5
Other classes of land.....	2	3	25	2		1			33
Total.....	8	4	33	2		3		30	80

STATEMENT No. 10—SUMMARY OF REPORTS ON FIRES IN FOREST SECTIONS ORIGINATING WITHIN 300 FEET OF TRACK
ALONG RAILWAY LINES UNDER THE JURISDICTION OF THE BOARD, SEASON OF 1952

	Canadian National (Atlantic Region) (a)	Canadian National (Central Region)	Canadian National (Western Region)	Canadian Pacific (Eastern Region) (b)	Canadian Pacific (Prairie Region)	Canadian Pacific (Pacific Region) (c)	Algoma Central and Hudson Bay	Northern Alberta	Great Northern	Miscel- laneous Railways (d)	Totals
<i>Values of property destroyed—</i>											
Young forest growth.....	\$ 10	\$ 300						\$ 75			\$ 385
Standing timber.....						37					37
Forest products.....			3								3
Other property.....											
Total.....	10	300	3			37		75			425

(a) Includes Province of Newfoundland.

(b) Includes Dominion Atlantic Railway.

(c) Includes Esquimalt and Nanaimo Railway.

(d) Includes the following lines:—Maine Central; Quebec, North Shore and Labrador; Sydney and Louisburg.

NOTE:—No fires were reported during 1952 as originating within 300 feet of track in forest sections along the following lines:—Cumberland Railway and Coal Co. Maritime Coal, Railway and Power Co.; Nipissing Central; Spokaue International Railway Co.; White Pass and Yukon Railway Co.; Quebec Central. ;

Class A fires are those which cover an area less than one-fourth acre, regardless of amount of damage.

Class B fires are those which cover an area of one-fourth acre to ten acres.

Class C fires are those which cover an area over ten acres.

APPENDIX "F"

REPORT OF THE BUREAU OF TRANSPORTATION ECONOMICS
FOR THE YEAR ENDED DECEMBER 31, 1952

Submitted herewith is the annual report of the Bureau of Transportation Economics for the year ended December 31st, 1952. Studies, reports and, analyses were undertaken for the Board of Transport Commissioners, the Air Transport Board, and other government departments, the majority of the projects being in the fields of rail transportation and air transportation.

Railways

The results of the second freight waybill survey, conducted during 1951, were published in June, 1952. A total of 25,077 waybills were processed, representing 29,219 carload shipments terminating on the test dates, January 10th, April 11th, July 11th and October 10th, 1951, and involving the movement of all-rail carload traffic between Canadian stations. In the published report, traffic was analysed by type of rate and by commodity groups for each originating rate territory. The information listed included number of carloads, revenue, weight, ton-miles, average revenue per ton-mile, average haul per ton, car miles and average revenue per car mile. The waybill survey was continued on four test dates during 1952 and will be processed during 1953.

The basic waybill data were analyzed in many different ways and over specific segments in conducting studies of western grain movements at statutory and non-statutory rates, the movement of coal between Western and Eastern Canada, traffic subject to the "bridge" subsidy, and traffic carried at competitive rates. In connection with freight rate equalization, data were prepared for the use of the Board's staff and for distribution to the railways, provincial governments and other interested parties. Analyses were made of the effect on railway revenues of various proposed equalized class and commodity rate scales. Other investigations included the segregation of railway freight and passenger expenses, the effects of the five-day week on railway expenses, and aspects of the highway grade crossing situation.

On August 1st, 1952, a traffic study was commenced on certain coastal shipping routes in Nova Scotia at the request of the Canadian Maritime Commission. This study is being conducted on a similar basis to the railway waybill analysis, except that all traffic is being analyzed rather than a selected sample. This work is continuing in 1953.

The Bureau participated on behalf of the Board in several joint conferences for the purpose of revising and improving the statistics of carloadings, commodities and employees and their compensation. A new reporting form for carloadings was completed and work on the other statistics was still in progress at the close of the year.

Based on preliminary estimates for the year 1952, operating revenues, operating expenses, and revenue freight ton-miles reached all-time highs. Operating revenues of Canadian railways increased by 7.5% to \$1,169,913,000 from \$1,088,583,789 in 1951. Operating expenses increased by 7.3% to \$1,048,723,000 from \$977,577,062 in 1951. The somewhat greater advance in revenues in relation to the increase in expenses resulted in increased net operating revenues of \$121,190,000 up from \$111,006,727 in 1951. Freight rate increases and additional traffic contributed to the higher revenues; certain passenger fares and express rates were also increased. Total expenses were substantially increased by wage and salary revisions; a full year of operation under the five-day week, is represented in 1952 expenses as compared with seven months during

1951. Revenue freight ton-miles increased 6.5% and revenue passenger miles advanced 3.4% over 1951. A summary of railway statistics from 1938 to 1952 is given below:

Year	Operating Revenues	Operating Expenses	Net Operating Revenue	Operating Ratio	Revenue Freight Ton-Miles	Revenue Passenger Miles
	\$	\$	\$		(000)	(000)
1938.....	336,833,400	295,705,638	41,127,762	87.8	26,834,697	1,783,178
1939.....	367,179,095	304,373,285	62,805,810	82.9	31,464,991	1,751,973
1940.....	429,142,659	335,287,503	93,855,156	78.1	37,898,196	2,176,468
1941.....	538,291,947	403,733,542	134,558,405	75.0	49,982,478	3,205,542
1942.....	663,610,570	485,783,584	177,826,986	73.2	56,153,953	4,989,296
1943.....	778,914,565	560,597,204	218,317,361	72.0	63,915,074	6,525,064
1944.....	796,636,786	634,774,021	161,862,765	79.7	65,928,078	6,873,188
1945.....	774,971,360	631,497,562	143,473,798	81.5	63,349,095	6,380,155
1946.....	718,501,764	623,529,472	94,972,292	86.8	55,310,308	4,648,558
1947.....	785,177,920	690,281,047	94,896,873	88.0	60,143,035	3,732,777
1948.....	875,832,290	808,126,455	67,705,835	92.3	59,080,323	3,477,273
1949.....	894,397,264	831,456,446	62,940,818	93.0	56,338,231	3,193,174
1950.....	958,985,751	833,726,562	125,259,189	86.9	55,537,900	2,816,154
1951.....	1,088,583,789	977,577,062	111,006,727	89.8	64,300,418	3,110,241
1952 (Est.).....	1,169,913,000	1,048,723,000	121,190,000	89.6	68,459,000	3,216,000

Airways

During the year twenty-five audits, surveys and investigations were conducted at various points across Canada and annual reviews were made of the financial position of 107 air carriers. Accounting studies were made in connection with Canada's contribution to the South Pacific Air Transport Council, ICAO Statistical Conference, and Classifications of Accounts for Air Carriers and Airports. A total of seventy-eight major reports were made on the financial position and the economic aspects of applicants for Air Transport Board licences; nine reports were prepared in connection with changes in ownership of licensed air carriers; and sixteen reports in connection with applications for airport expenditures.

The Bureau made a study of future airport needs at Winnipeg and Ottawa, and conducted surveys for similar reports at Toronto and Montreal. Due to the rapid expansion in air travel, many terminal building facilities appear to be inadequate and additional space may be required at a number of traffic centres across Canada.

The subject of airport revenues and expenses was under continuous study during 1952. The expense items were analyzed in detail in respect to the costs of heating, lighting and cleaning of Department of Transport hangars and terminal buildings, depreciation, water, sewage, fire protection, transportation, maintenance of roads and administration. Conclusions and recommendations were made which resulted in revised allocation procedures and a revised scale of charges for the rental of space and the use of facilities.

Recurrent reports on Canadian air carriers were prepared and forwarded to the International Civil Aviation Organization. The Airline Traffic Survey was conducted in March and in September in conjunction with a similar survey by the United States Civil Aeronautics Board. Two reports were completed for each survey period, one on Domestic Ticket Sales and the other on Stations and Routes Traffic.

The regular monthly and annual reports of licensed air carriers were processed under the revised reporting procedures adopted January 1st, 1952. Preliminary estimates for the year 1952 indicate total operating revenues for

all domestic air carriers of \$73,991,000, being an increase of 24% over 1951. Operating expenses increased by 30% to \$70,381,000, and net operating revenues were reduced from \$5,652,798 in 1951 to \$3,610,000 in 1952. Traffic statistics showed increases of 15% in revenue passengers, 7% in mail and 46% in revenue goods carried. The 1951 and 1952 figures reflect the inclusion of contract operations by wholly owned air subsidiaries of parent companies engaged in non-air activities. A summary of domestic air carrier operations is shown below for the years 1947 to 1952.

Year	Operating Revenues	Operating Expenses	Net Operating Revenues	Revenue Passengers	Pounds of Mail	Tons of Revenue Goods
	\$	\$	\$			
1947.....	26,834,086	29,321,490	Dr. 2,487,404	693,560	5,908,775	15,039
1948.....	33,712,329	34,799,670	Dr. 1,087,341	880,407	8,893,682	15,973
1949.....	39,581,021	40,380,598	Dr. 799,577	998,067	12,141,798	15,319
1950.....	46,367,317	45,098,036	1,269,281	1,233,158	13,113,275	19,897
1951.....	59,614,637	53,961,839	5,652,798	1,531,661	13,940,408	40,226
1952 (Est.).....	73,991,000	70,381,000	3,610,000	1,760,000	14,961,000	58,800

G. A. SCOTT,
Director.

APPENDIX "G"

STATEMENT SHOWING TOTAL NUMBER OF APPLICATIONS MADE TO THE BOARD UNDER THE VARIOUS SECTIONS OF THE RAILWAY ACT, ALSO COMPLAINTS AND REPORTS FILED FOR THE YEAR ENDED DECEMBER 31, 1952

Sections of the Railway Act	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Pipe Lines Act.....		2	2	1	12	9	5	9	5	5	11	3	64
Rescission of Orders Sec. 51.....		1	1	1	1		6	1			1		12
Traffic Agreements Sec. 154.....								2					2
General Powers Sec. 154.....	3											1	4
Gas-Pipes Sec. 162.....								1	1				2
Deviations, Changes, Removals, Sec. 178.....								1					1
Location of Line, Sec. 170.....					1	1			1	2			3
Removal of Stations Sec. 188.....				1									3
Branch Lines Secs. 180-7.....	2	1	1	1	2	1	2		2		2	1	15
Station Buildings, Sec. 188.....	1	1	2	5	3	2	1	2		1		2	20
Station Agent Sec. 188.....	4					3	2	2	1		6	1	19
Station Accommodation, Sec. 188.....			1										1
Expropriation, Sec. 193.....		1				1			2	1		1	4
Operation of Trains over Sidings Sec. 193.....				2	2		3						4
Construction of Works in Navigable Waters Sec. 248.....					5	5	5	13	17	9	7		61
Viaducts Secs. 249-51.....				1									1
Stations destroyed by fire.....					1	1	1		1			2	6
Subways, Secs. 249-51.....			7		3				1	3		1	17
Bridges Sec. 251.....	11	9	11	12	14	6	8	7	9	13	13	5	118
Clearances, Sec. 250.....	3		2	5	3	2	2	3		2	3	3	28
Interlocking Appliances Sec. 252.....		3	6	12	3	6	3	3	4	1	5	2	48
Highway Crossings Sec. 256.....	22	20	16	23	38	29	23	35	16	20	20	19	286
Ditches Sec. 268.....					2					1			3
Sewers Sec. 269.....	1	1	2		2		1		1	1			7
Pipe Line Crossing Sec. 248.....						1	1				4	4	8
Farm and Private Crossings Secs. 252-3.....		1		1	3					1		1	8
Cattle Guards Sec. 274.....	13		7	9	2	3	3	6	8	5	8	12	77
Accident Reports Sec. 286.....	75	73	74	44	46	51	62	30	63	78	59	75	730
Protection at Crossings Sec. 257.....	23	20	20	24	17	39	38	20	18	28	28	36	320
Rolling Stock.....	2	1			1				1				5
Adjustment in Rates.....	1	1				4	3	1	2		1		6
Train Services, Secs. 302-4.....	4	1	1	3	1		3	1	1	1	1	1	21
Whistling by Locomotives Sec. 308.....		1			1	2	3	1	5				15
Accommodation for Traffic Sec. 312.....		5	3	4		2	1	1	2	3	6		32
Equality as to tolls Sec. 314.....				1									1
Filing of Tariffs Secs. 323-7.....							1	5		1	3	1	7
Disallowance of Tariffs Sec. 325.....	1						2			2			9
Standard Freight Tariff Sec. 330.....					1								1
Standard Passenger Tariff Sec. 334.....					1								1

APPENDIX "H"

GENERAL ORDER No. 774.

In the matter of General Order No. 753:

File No. 31430-30

MONDAY, the 11th day of February, A.D. 1952.

HUGH WARDROPE, *Assistant Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

It is ordered that General Order No. 753 be, and it is hereby, amended by striking out the words, "Within one year of the date of this Order", in paragraph numbered 1 thereof and substituting therefor the words, "On or before the 8th day of November, 1952."

HUGH WARDROPE,
Assistant Chief Commissioner.

GENERAL ORDER No. 775.

In the matter of flagging equipment for engines:

File No. 6923

WEDNESDAY, the 27th day of February, A.D. 1952.

Hon. Mr. Justice JOHN D. KEARNEY, *Chief Commissioner.*

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

The Board Doth Order and Direct

1. That engines of every railway company subject to the legislative authority of the Parliament of Canada, while in either yard or road service, be equipped with a full set of flagging signals, to include a red flag on a staff, a red light, a white light, torpedoes and fusees, such equipment to be maintained in good order, and to be always available and ready for immediate use; and

2. That General Order No. 12 be, and it is hereby, rescinded.

JOHN D. KEARNEY,
Chief Commissioner.

GENERAL ORDER No. 776.

In the matter of the application of the Canadian Pacific Railway Company for approval, for use in passenger cars, of one-quart size, carbon tetrachloride, Quick-Aid fire extinguishers manufactured by the General Fireguard Corporation Limited, as shown on Drawing No. T-185-XG, on file with the Board under File No. 4739-35:

MONDAY, the 10th day of March, A.D. 1952.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

Upon reading the submissions filed—

It is ordered that the Quick-Aid fire extinguisher, manufactured by General Fireguard Corporation Limited, as shown on the said drawing on file with the Board under File No. 4739-35, be, and it is hereby, approved for use on passenger cars of Canadian railways subject to the jurisdiction of the Board.

HUGH WARDROPE,

Assistant Chief Commissioner.

GENERAL ORDER No. 777.

In the matter of Regulations for the Transportation by Express of Acids, Compressed Gases, Inflammables, Oxidizing Substances, Explosives, Etc., and Specifications for Shipping Containers, under Sections 349 and 350 of the Railway Act, and General Order No. 678:

File No. 1717-12

THURSDAY, the 27th day of March, A.D. 1952.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Upon reading the submissions filed—

It is ordered that the Regulations for the Transportation by Express, of Acids, Compressed Gases, Inflammables, Oxidizing Substances, Explosives, Etc., and Specifications for Shipping Containers prescribed under General Order No. 678, dated December 3, 1945, be, and they are hereby, amended by striking out section 182 (c) on page 47 thereof and substituting therefor the following:

“Shipments of explosives or other dangerous articles, except poisons and non-inflammable compressed gases, when transported in passenger carrying trains, should be loaded in the car occupied by an express employee or in connecting cars to which an express employee has access through end doors, and in a place that will permit their ready removal in case of fire. They must not be loaded in cars or stored in stations near steam pipes or other sources of heat. Explosives, flammable liquids (red label) and flammable gases (red label) must not be loaded, transported or stored in cars or stations equipped with lighted heaters or where open flame lights or stoves are used.

No placards are required on such cars when occupied by an express employee. Shipments bearing poison label, when practicable, should be loaded in sealed cars; when loaded in cars occupied by messenger, care should be taken to prevent any contents sifting or leaking from containers.”

HUGH WARDROPE,

Assistant Chief Commissioner.

GENERAL ORDERS Nos. 778 AND 779 WILL ISSUE IN 1953.

GENERAL ORDER No. 780.

In the matter of the "Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight, and Specifications for Shipping Containers", approved by General Order No. 722:

File No. 1717-88-81

THURSDAY, the 11th day of December, A.D. 1952.

Hon. Mr. Justice JOHN D. KEARNEY, *Chief Commissioner*.

HUGH WARDROPE, *Asst. Chief Commissioner*.

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner*.

F. M. MACPHERSON, *Commissioner*.

H. B. CHASE, C.B.E., *Commissioner*.

Upon reading the submissions filed—

It is ordered

1. That the "Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight and Specifications for Shipping Containers", be and they are hereby, amended by inserting the following specification immediately after Specification 23G on page 133:

"Specification 23H

FIBREBOARD BOXES

1. *Compliance.*—(a) Required in all details.

2. *Definitions.*—(a) Terms such as "200-pound test" mean minimum strength, Mullen or Cady test.

(b) "Joints" are where edges of parts of box are connected together in setting up box.

(c) "Seams" are where edges of parts of box are visible, except joints, when box is closed.

3. *Solid fibreboard.*—(a) To be 3-ply or more; both outer plies waterproofed. Each ply at least 0.016".

4. *Stitching staples.*—(a) Of steel wire, copper-coated or equivalent in non-sparking quality, at least $\frac{3}{32}$ " x 0.019" or equal cross section, formed into staples about $\frac{7}{16}$ " wide.

5. *Tape.*—(a) Pressure sensitive, paper backed. The basic weight of the paper shall be not less than 70 pounds per ream after sizing and coating. Longitudinal tensile strength shall be not less than 50 pounds per inch of width and the latitudinal strength shall be not less than 11 pounds per inch of width, or for vertical application as provided by Sec. 12 tape must be pressure sensitive, filament reinforced. Tape backing shall have a minimum longitudinal tensile strength of 160 pounds per square inch of width and a minimum elongation of 12 per cent at break. The tape shall have sufficient transverse strength to prevent ravelling or separation of the filaments. Tape shall have an adhesion of 18 ounces per inch of width minimum when tested according to acceptable methods. Tape shall adhere immediately and firmly to fibreboard surface when

applied with hand pressure in the temperature range of 0° to 120° F. No solvent or heat shall be necessary to activate the adhesive.

(b) The tape authorized by paragraph (a) of this section must be manufactured of material which will not separate or delaminate when submerged in water for 72 hours and which will not show any delamination or bleeding up to 160° F. and which will not lose its strength, delaminate or become brittle at 0° F.

6. *Test.*—(a) Acceptable board must have prescribed strength, Mullen or Cady test, under test as follows:

(1) Clamp board firmly in machine and turn wheel thereof at constant speed of approximately 2 revolutions per second.

(2) Six punctures required, 3 from each side; all results but one must show prescribed strength.

(3) Board failing may be retested by making 24 punctures, 12 from each side; when all results but 4 show prescribed strength the board is acceptable.

7. *Type authorized.*—(a) Of solid fibreboard, telescoping type construction without recessed heads. Box to consist of top and bottom sections, divided equally or unequally, and inner lining tube. The lining tube must be staple stitched to the lower section of the box to give in effect a 2-piece box.

8. Inside packing and size limits. (a) As prescribed in Sec. 11.

9. *Forming.*—(a) Parts must be cut true to size and so creased and slotted as to fit closely into position without cracking, surface breaks, separation of parts outside of crease, or undue binding.

10. *Joints.*—(a) Lapped at least $1\frac{1}{2}$ "; staple stitched at $2\frac{1}{2}$ " intervals and within 1" of each end of joint; 2 banks of staple stitches in each joint.

11. Authorized gross weight (when packed) and parts required. (a) Box to be of solid fibreboard, special waterproofed at least 300-pound test, and weighing at least 250 pounds per thousand square feet. Tubes to be of solid fibreboard at least 200-pound test and of 1 piece with adjoining edges staple stitched or taped.

(b) Authorized gross weight: 65 pounds when two or more lining tubes are used to divide the box into two or more compartments; 65 pounds when one or more lining tubes are used and contents will consist of one cartridge only or of black powder in bags; 35 pounds in all other cases except that boxes having a single solid fibreboard lining tube at least 0.120 inch thick are authorized for 65 pounds gross weight.

12. *Closing for shipment.*—(a) The upper and lower sections of the container shall be secured together by the application of one single strip of tape not less than 1" wide, exclusive of manufacturer's joint disposed entirely around the perimeter of the container and spaced approximately equally distant over each portion of the container at the seam of abutting covers. The ends of the tape around the perimeter of the container must overlap $1\frac{1}{2}$ " minimum. The container may alternately be closed by using tape as specified in Section 5(a) for vertical application. When closed by this method, the cover of the container shall be secured to the bottom by application of single strips of tape, not less than $\frac{1}{2}$ " wide, to the sides and in a vertical manner; two strips, one on each side for containers 18" in length or under; four strips, two on each side, minimum for containers over 18" in length. The taping shall start within 1" of the top-side score and extend to within 1" of the side-bottom score and in no case shall the strips be less than 4" in length,

(b) Tape used in closing must be at least equal in efficiency to that used on boxes passing the drum test prescribed in Sec. 16.

13. *Marking.*—(a) On each container. Symbol in rectangle as follows:

BTC—23H * *

(1) Stars to be replaced by authorized gross weight (for example BTC-23H35 or BTC-23H65). This mark shall be understood to certify that the container complies with all specification requirements.

(2) Name and address of plant making the container; symbol (letters) authorized if recorded with the Bureau of Explosives. This mark to be located just above or below the mark specified in paragraph (a) of this section.

(3) Size of markings. At least $\frac{1}{2}$ " high.

14. *Special Tests.*—(a) By whom and when. By or for each plant making the boxes; at beginning of manufacture and at 6-month intervals thereafter; on largest size, by weight, above and below 35 pounds gross. Report of results, with all pertinent data, to be maintained on file for one year; copy to be filed with the Bureau of Explosives.

15. *Material.*—(a) Box material (special waterproofed board) must be 300-pound test board and weigh at least 250 pounds per thousand square feet when commercially dry.

(b) Box material must also have 200-pound test strength and moisture content not over 30 per cent as follows:

(1) Immediately after exposure for 3 days to 90 per cent humidity at 75° F.

(2) Immediately after it has been in contact with water for 3 hours under 3" head at 75° F.

16. *Completed Containers.*—(a) Samples must pass the following immediately after exposure for 2 weeks to 90 per cent humidity at 75° F.; loaded containers shall contain dummy contents of shape and weight of the expected contents, and shall be closed in same manner as for shipment.

(1) Three loaded samples to be tested. Each must withstand 200 drops in standard 7-foot revolving test drum with pointed hazard in place, without spilling any contents.

(2) Three loaded samples to be tested. Each must withstand end to end pressure of at least 500 pounds without deflection of over $1\frac{1}{2}$ ".

(3) Three empty samples to be tested. Each must withstand top to bottom pressure of at least 500 pounds without deflection of $\frac{1}{2}$ inch.

2. That the "Regulations for the Transportation of Explosives and Other Dangerous Articles by Freight, and Specifications for Shipping Containers", as amended by "Supplement No. 3", approved by General Order No. 746, dated October 6, 1950, be, and they are hereby, amended by striking out Section 61-2, sub-paragraph (a) (2), paragraph (b), sub-paragraphs (c) (1), (d) (2), and (e) (2), thereof, and substituting therefor the following:

"(a) (2) Spec. 14, 15A or 16A. Wooden boxes, or spec. 23F or 23H, fibre-board boxes, with inside containers which must be cartridges not exceeding 12 inches in diameter or 50 pounds in weight with length not to exceed 36 inches, or bags not exceeding 50 pounds each securely closed so as to prevent leakage therefrom. Gross weight of wooden boxes not to exceed 75 pounds and gross weight of fibreboard boxes not to exceed 65 pounds.

(b) High explosives (dynamite) containing 10 per cent or less of a liquid explosive ingredient in cartridges or bags as prescribed in sec. 61 (d) and (e) may be packed in wooden boxes, spec. 14, 15A, or 16A, gross weight not to exceed 140 pounds, or fibreboard boxes, spec. 23F or 23H, gross weight not to exceed 65 pounds,

(c) (1) Spec. 14, 15A, or 16A. Wooden boxes, or spec. 23F or 23H, fibreboard boxes, with inside containers which must be cartridges not exceeding 4 inches in diameter or 8 inches in length, or cartridges not exceeding 5 inches in diameter or 10 inches in length, provided each such cartridge is enclosed alone, or with other cartridges in another strong paper shell and the resulting cartridge dipped in melted paraffin or equivalent material. The length of such completed cartridge shall not exceed 30 inches. Gross weight of wooden boxes not to exceed 75 pounds and gross weight of fibreboard boxes not to exceed 65 pounds.

(d) (2) Spec. 14, 15A, or 16A. Wooden boxes, or spec. 23F or 23H, fibreboard boxes, with inside containers which must be cartridges not exceeding 12 inches in diameter or 50 pounds in weight with length not to exceed 36 inches, or bags not exceeding $12\frac{1}{2}$ pounds each packed with filling holes up. Gross weight of wooden boxes not to exceed 75 pounds and gross weight of fibreboard boxes not to exceed 65 pounds.

(e) (2) Spec. 23F or 23H. Fibreboard boxes.

JOHN D. KEARNEY,
Chief Commissioner.

GENERAL ORDER No. 781

In the matter of the application of the Railway Association of Canada on behalf of its member companies, hereinafter called the "Applicant Railway Companies", for amendment of General Orders Nos. 326, 527 and 529 dealing with the rate of exchange in connection with freight shipments between points in Canada and points in the United States, and for leave to publish and file through the medium of the Canadian Freight Association, on three days' notice, a tariff providing for the application to charges on international shipments of coal and coke of the same surcharge or discount as is applied to charges on other international freight shipments pursuant to General Orders Nos. 326 and 527 as amended:

Files Nos. 29674·1·2
29674·68

MONDAY, the 15th day of December, A.D. 1952.

Hon. Mr. Justice JOHN D. KEARNEY, *Chief Commissioner.*

HUGH WARDROPE, *Asst. Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Upon reading the submissions filed—

It is ordered

1. That General Order No. 326, dated January 14, 1921, be, and it is hereby, amended by striking out the words "other than coal and coke" in the operative part of the said Order.

2. That General Orders No. 527, dated October 25, 1934, and No. 529, dated December 10, 1934, be, and they are hereby, amended by striking out the words "other than coal and coke, except petroleum, creosote, tar or pitch coke" in the operative part of the said Orders.

3. That the Applicant Railway Companies may publish and file through the medium of the Canadian Freight Association, on not less than three days' notice, a tariff providing for the application to charges on international shipments of coal and coke of the same surcharge or discount as is applied to charges on other international freight shipments pursuant to the said General Orders Nos. 326, 527 and 529, the said tariff to be subject to complaint and investigation as provided by the Railway Act.

FRANK M. MACPHERSON,
Commissioner.

GENERAL ORDER No. 782

In the matter of examinations on Operating Rules:

File No. 43757·1

THURSDAY, the 18th day of December, A.D. 1952

Hon. Mr. Justice JOHN D. KEARNEY, *Chief Commissioner.*HUGH WARDROPE, *Asst. Chief Commissioner.*A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*F. M. MACPHERSON, *Commissioner.*H. B. CHASE, C.B.E., *Commissioner.**It is ordered as follows:*

1. In this order

- (a) "Rule Instructor" means a person who is employed in such capacity by a railway company, or such officers as the company authorizes to instruct or examine on operating rules;
- (b) "Uniform Code" means the Uniform Code of Operating Rules approved by General Order No. 750, or such Uniform Code of Operating Rules as may hereafter be approved by the Board.

Operations Governed by Uniform Code

2. No railway company shall permit any person to work in any of the occupations listed in paragraph 3 whereof the duties are governed by the Uniform Code, unless the person has written and passed to the satisfaction of the company the type of examination book of the company on operating rules that is set forth in paragraph 3 opposite the respective occupations.

Prescribed Examination Books

3. Occupation

Type of Examination Book

Conductor, Engineman, Train Dispatcher, Yardmaster, Yard Foreman, Snow Plow Foreman, and such other occupations as the company designates.

A

Trainman, Train Baggage-man, Fireman, Fireman Helper, Yardman, Switchtender, and such other occupations as the company designates.

B or B-1*
(See Note re B-1)

Telegrapher, and such other occupations as the company designates.

C

Section Foreman, Bridge Foreman, Interlocking Signalman, and such other occupations as the company designates.

D

Operations Governed by Operating Rules other than the Uniform Code.

4. No railway company shall permit any person to work in any of the occupations whereof the duties are governed wholly or partly by operating rules

* Note: Where the use of B-1 book is authorized on any railway an employee must within four months from the date of his entry into the company's service, write and pass an examination on the "B" book.

approved by the Board other than the Uniform Code, unless the person has passed to the satisfaction of the company such examinations as are prescribed by the company.

Periodic Oral Examinations

5. (1) Every railway company shall at intervals determined by the company but not exceeding three years, commencing with the effective date of this order, by its Rule Instructors conduct an oral examination of each of its employees who is working in any of the said occupations on the operating rules under which he works.

(2) No railway company shall permit any railway employee to work in any of the said occupations who does not pass such oral examinations within the time intervals referred to in paragraph 5(1). The railway company will notify employees by bulletin or otherwise of the dates upon which the Rules Instructor will be available at the various locations to conduct oral examinations.

Filing of Examination Books

6. Two copies of each type of examination book or other written examination shall be filed with the Board within ninety days from the date of this Order, or forthwith after it is put in use hereafter, by or on behalf of the company or group of companies using it.

Record of Examinations and Issue of Certificates

7. (1) Every railway company shall maintain an examination record of each employee so examined.

(2) When an employee passes an examination a certificate to that effect shall be issued to him by the Rule Instructor.

JOHN D. KEARNEY,
Chief Commissioner.

OTTAWA, December 28, 1951.

CIRCULAR No. 268

Case 4704

NOTICE TO APPLICANTS

Please note subsection 5 of section 372 of the Railway Act, 1919, as follows:

When leave not required

(5) Leave of the Board under this section shall not be necessary for the exercise of the powers of a railway company under section three hundred and sixty-seven of this Act, nor for the maintenance of works now authorized, nor when works have been or are to be constructed or maintained by consent and in accordance with any general orders, regulations, plans or specifications adopted or approved by the Board for such purposes.

By Order of the Board.

P. F. BAILLARGEON,
Secretary.

OTTAWA, January 23, 1952.

CIRCULAR No. 269

File No. 1717-104—re Handling Radioactive Materials in Emergencies.

Radioactive materials, including the radioactive isotopes, as well as radium and the other more commonly known radioactive substances, emit radioactive rays in varying quantities, dependent upon the amount of radioactive substance involved as well as other physical properties of the material. The amount of radiation from a substance cannot be determined either by the appearance of the material or by its volume, and must be determined by instruments or other suitable measuring device. In order to transport any of the more active, and therefore more hazardous of these materials, it is necessary to pack them in containers of such design that the radiation escaping from the package is reduced to safe limits so as to enable personnel to handle the packages without danger to themselves. For the more active materials, and therefore the more hazardous ones, it is necessary that lead shielding be used and the thickness of this lead shielding is proportionate to the activity of the substance. It follows in natural sequence that the packing for the highly active substances is much stronger and less liable to failure than for the less dangerous materials.

Likewise, the value of radioactive substances is commensurate with the amount of radioactivity which they emit and the period of time for which they are capable of emitting radiation. For that reason strong containers are used to prevent the possibility of loss of these materials even for materials of such nature that the extremely heavy lead shielding is not required. Both of these factors tend to reduce the possibility of the material being spilled even under the most adverse conditions, and the instructions for handling which follow are for the purpose of providing some protection in the event of an extremely serious accident, should it result in actual spilling of the material.

Should radioactive materials become spilled from the containers in which they are normally handled, in transportation, the following precautions should be observed:

1. If the package is broken open so as to expose the contents and is in an occupied area so that it cannot be readily isolated by roping off the area, some protection can be afforded by piling sand bags around the spilled material or by covering it with canvas or burlap or pieces of sheet metal and then shoveling earth on top of it. This is a protective measure of a temporary nature only and should not be relied upon for protection beyond that which is absolutely necessary to permit emergency operations requiring the presence of personnel.
2. As soon as possible after an accident occurs which results in the spillage of radioactive materials, the shippers or other persons having necessary equipment for handling should be contacted to assist in recovering the material and arranging for its safe disposal.
3. In no case should an attempt be made to destroy radioactive materials by burning or throwing them into bodies of water, since the radioactivity will remain under either condition and may be spread about so as to increase rather than remove the hazard.

4. In no case should any person remain unnecessarily in an area where radioactive material has been spilled until it has been determined with suitable survey instruments that such area is safe for occupation, and persons who must in the meantime approach such areas to perform emergency work should limit the time in the area to the shortest possible periods.

5. If a vehicle transporting radioactive materials is involved in fire, the use of large quantities of water in extinguishing the flames should be avoided. Chemical extinguishers are preferred since they are less liable to spread any material which might escape from the packages. **WARNING—AVOID INHALING SMOKE FROM BURNING PACKAGES.**

6. No person should be allowed to approach within 200 feet of spilled radioactive materials except to perform emergency rescue work when such isolation is possible, until it has been determined by means of instruments that closer approach is safe.

7. When a proper instrument is available for locating the spilled material and determining the amount of radiation present, the site where the material is believed to have been spilled may be approached with the instrument; and if it is found that the degree of activity at a distance of 2 or 3 feet from the source does not exceed 200 milliroentgens per hour, the material may be scooped up with long-handled shovels and placed in pails or like containers, which can then be carried on poles to an isolated location and left for further handling by trained personnel.

8. Should radioactive material become spilled on the clothing of any person, the contaminated clothing should be removed immediately and isolated for handling by qualified personnel. Every precaution should be taken to prevent coming in actual contact with radioactive material.

Should an accident occur in which outer shipping containers of radioactive materials are broken, but it is apparent that the lead shield actually containing the material is still intact, no special precautions are necessary other than handling the material so that no one person will actually carry the shielded material in his hands for more than 5 minutes at a time. If the shield can be placed in any other container of the approximate dimensions of the original container, the package can then be handled with the same safety as the original package, which will provide adequate protection for any normal handling. No person should remain unnecessarily within three feet of a package of radioactive material even though it has not been damaged, although the packages are designed to provide safety even in the event of actual contact with the package for periods of one-half hour or more out of any twenty-four hour period.

In any case, where it is necessary to handle radioactive materials, the best precaution is to secure the assistance of qualified persons; and if an office of the Atomic Energy Control Board can be contacted, they will no doubt willingly supply the necessary advice or assistance. Any person qualified to use a survey meter can determine what areas are safe for occupancy as an interim measure, and isolation of any area in which measured radiation exceeds 200 milliroentgens per hour is advisable.

Contrary to common belief, radioactive materials in the forms in which they are transported will not explode due to fire, impact or other conditions which might result if an accident were to occur. Such materials will not cause other substances to become radioactive except by actual physical contact with them,

but many of these materials are of such nature that if they were spilled upon concrete, metal or wooden surfaces, it might be extremely difficult, if not impossible, to decontaminate the substance upon which they were spilled. It is for that reason that careful and thorough decontamination procedures are necessary in the event the substances are spilled. Physically these substances are in the form of a solid, liquid or powdered material, although a few are handled in the form of gases. For the most part, the gaseous substances will dissipate quite readily in air should they be released from their containers and will not create a serious hazard. The liquid or solid materials will present more serious disposal problems in the event they cannot be completely recovered and placed in suitable containers.

NOTE: If this Circular is quoted, it should be quoted in its entirety. Do not reproduce in part without permission. See Bureau of Explosives Pamphlet No. 22 for Emergency Precautions to be followed in Handling Radio-active Ores and Residues.

By Order of the Board,

P. F. BAILLARGEON,
Secretary.

OTTAWA, February 28th, 1952.

CIRCULAR No. 270

Application made by railway companies for permission to replace Station Agents with Caretakers under Sections 178 and 179 of The Railway Act.—File No. 4205-7.

In order to permit more expeditious consideration of applications received from the railway companies for permission to replace Station Agents with Caretaker-Agents or Caretakers, the following procedure is suggested:

Application should be supported by a statement in triplicate showing particulars of the earnings by months for two complete years immediately prior to the application. These earnings should be segregated as follows:

1. The earnings at the station proper should be reported separately from the earnings at flag stations under the jurisdiction of the Agent concerned.

2. *Freight Revenue*: Statement should show the number of l.c.l. consignments received and forwarded each month, together with the monthly revenue; information in respect to carload shipments should be tabulated in the same manner.

3. *Passenger Revenue*: Statement should include the number of tickets sold each month, together with the monthly revenue from ticket sales.

4. *Express Revenue*: Statement should include the number of inbound and outbound express shipments in addition to the monthly accrued revenue.

5. *Telegrams*: Statement should include the number of messages received and forwarded.

6. Each submission should be supported by a summary showing the total revenue derived from all sources for each year at the station concerned, including subsidiary or flag station revenues.

The following additional data should also be submitted with the application:

- (a) Particulars of the population of the communities served by the station.
- (b) A description of the Municipality; whether an incorporated Village, Town, Farming District, etc.
- (c) Particulars of the industries served by the railway through the station facilities.
- (d) Distance to the nearest open station on either side.
- (e) Particulars in respect to other forms of transportation available, specifically bus and truck service, might also be included, particularly in instances where such competition has a bearing on the reduction in the l.c.l. and passenger traffic.
- (f) If the application has been reviewed with the local representatives of the Municipalities or industries affected the application should so state, indicating whether or not there is opposition to the proposed change.

The information submitted may be modified in respect to certain applications where some of the items above referred to are not pertinent.

Dated at Ottawa, Ontario.
this 28th day of February, 1952.

By Order of the Board,
P. F. BAILLARGEON,
Secretary.

OTTAWA, March 27, 1952.

CIRCULAR 271

File No. 27214-20—Protection installed in accordance with General Orders 607, 676 and 680

When installation of crossing protection is to be made under an order of the Board in accordance with General Orders Nos. 607, 676 and 680, detailed location plans shall be submitted to the authority having jurisdiction over the highway for its approval as to location of the protection in relation to the highway and railway before such plans are submitted to the Board for approval. The plans shall show the distance in feet from the clearance of the protective device to the nearest edge of the travelled portion of the highway and to the nearest track.

By Order of the Board,

E. R. HOPKINS,
Secretary.

OTTAWA, April 16th, 1952.

CIRCULAR No. 272

File No. 45464.1—Reduction in freight rates between points in Eastern Canada and points in Western Canada, pursuant to Section 18, Chapter 22, 15-16 George VI.

The aforesaid Act provides:

"18. (1) Subject to the provisions of this section, the Minister of Finance may, when authorized by the Governor in Council pay out of the Consolidated Revenue Fund:

"(a) to the Canadian Pacific Railway Company an amount equal to the annual cost of maintaining the trackage between Sudbury and Fort William on its transcontinental line of railway, and

"(b) to the Canadian National Railway Company an amount equal to the annual cost of maintaining trackage corresponding in extent to the trackage mentioned in paragraph (a) between Capreol and Fort William and between Cochrane and Armstrong on the transcontinental lines of Canadian National Railways.

(2) The Board of Transport Commissioners for Canada shall determine the annual cost of maintaining the trackage for which payment may be made under this section and shall fix the extent of such trackage in respect of each company.

(3) The amounts paid under subsection one shall not in any year exceed seven million dollars in the aggregate.

(4) When the cost of maintenance of the trackage on the lines of railway specified in subsection one exceeds in any year the sum of seven million dollars, the payments authorized by subsection one shall be apportioned between the companies according to the amounts expended by each company on the maintenance of its trackage.

(5) The amounts paid under subsection one shall be applied to a reduction in the relative level of rates applying on freight traffic moving in both directions between points in Eastern Canada and points in Western Canada over the trackage to which the payment relates, in such manner as the Board may allow or direct."

The Board has had under consideration the fixing of the payment contemplated by the Act, and the application of such payment to a reduction in certain freight rates on traffic moving over such trackage.

The Board recognized that numerous difficulties might arise in the carrying out of the terms of the Act, and held a hearing to obtain the views of interested parties. The views thus obtained justify the Board proceeding with the administration of the statute on an interim basis pending further study and possibly some later amendments.

The Board has concluded that the aggregate cost of maintaining the stipulated trackage of the Canadian Pacific Railway Company and the Canadian National Railways during the year 1952 will exceed the sum of seven million dollars; therefore the aggregate payment to be made to both railways will be the maximum of seven million dollars stipulated by the Act.

After having carefully weighed all submissions made to it, the Board has determined that the following procedure shall be adopted in fixing a reduction in freight rates as contemplated by the Act:

1. That a reduction in freight rates as hereinafter stated shall be applied to all traffic other than the following: Grain and grain products; Coal from Alberta & Eastern British Columbia to Ontario that is subject to subsidized freight rates; Competitive traffic designated as such in the railways' tariffs; international traffic between Canada and the United States or to or from other countries via the United States; traffic moving between United States points passing through Canada; Export and; Import traffic to or from Canadian ports not charged domestic rates; and traffic governed by Agreed Charges.
2. That a reduction to be applied in respect of the traffic stated in No. 1 shall apply to the line haul movement of all traffic between points in Eastern Canada and points in Western Canada EXCEPT, traffic having both its origin and destination, or originating or terminating, at points situated on the lines of railway as follows:
 - i. Between, but not including, Sudbury to Port Arthur-Fort William, Ontario, on the Canadian Pacific Railway Company:
 - ii. Between, but not including, Capreol-Armstrong, Cochrane-Armstrong, Cochrane-Port Arthur-Fort William, and Capreol-Port Arthur-Fort William, Ontario, on the Canadian National Railways.
3. That subject to paragraphs numbered 1 and 2 hereof, carload and less than carload freight rates, hereinafter termed "basic" rates, shall be reduced effective May 1st, 1952, by the aggregate of the following:
 - i. 2.53 per cent of the basic rate:
 - ii. 5.8 cents per 100 lbs.
4. That the reduction in rates directed by paragraph numbered 3 shall be provided for in a master tariff or blanket supplement or such other method as the Board may from time to time approve or direct. Contrary provisions of Tariff Circular No. 1 are hereby waived. Fractions of rates, so reduced, less than .5 cents to be dropped, and .5 cents or over to be made next whole cent.
5. That the reduction so directed shall not affect or prejudice such adjustment of basic rates as may be necessary from time to time, but such reduction shall apply to a revised basic rate in the same manner as it had been applied prior to such revision; provided, however, that on any general revision of basic rates the reduction specified under paragraph numbered 3 will be subject to revision by the Board.
6. That such reduction as is herein directed shall be maintained in effect until further direction of the Board.

An Order will issue to this effect.

By Order of the Board,

E. R. HOPKINS,

Secretary.

OTTAWA, September 11th, 1952.

CIRCULAR No. 273

POSTING OF TARIFFS—File 39362

Attention is directed to the amendments to the Railway Act, enacted December 21, 1951, whereby Section 342 thereof was repealed with the exception of subsection 2, reading:—

“The company shall keep on file at its stations or offices, where freight is received and delivered, a copy of the freight classification, or classifications, in force upon the railway, for inspection during business hours.”

Similarly subsection 6 of Section 323 was amended and now reads:—

“The Board may, with respect to any tariff of tolls, make regulations fixing and determining the time when, the place where, and the manner in which, such tariffs shall be filed, published and kept open for public inspection.”

Pursuant to the powers thus conferred upon the Board by the said subsection, the following regulations are made.

Posting of Tariffs

1. The companies subject to the Railway Act 1919, shall keep on file in an orderly manner and open to public inspection during business hours a copy of its tariff schedules at the following places respectively:—

(a) Headquarters	} All tariff schedules
Regional offices	
Division offices	
District offices	

(b) Agency offices or stations,	} All tariff schedules applying from or to such offices or stations.
except as provided in (c) . . }	

(c) Freight Agency Stations	} Class rate tariffs applying from or to such stations, and such other freight tariff schedules as are frequently used.
serving a population of	
10,000 or less }	

2. Freight rate information that is required for occasional shipments, for which freight tariff schedules are not posted at the freight station concerned, will be secured by the agent from the Freight Traffic Official in charge of the territory. In the event of any freight tariff schedules not of file at a freight station being required on account of frequent movement, or if any shipper or consignee requests that a freight tariff schedule be posted at a particular station, such freight tariff schedule shall immediately be placed on file at that freight station.

3. Tariff schedules for posting as hereinbefore provided shall be forwarded to the said offices and stations concurrently with the forwarding of such tariff schedules to the Board for filing.

4. A notice in large type shall be posted up in a prominent place at each office or station where tariff schedules are on file specifying where such tariff schedules may be examined, and the agent or person in charge, shall produce, on request, such tariff schedules for inspection.

5. The term "Tariff Schedules" means a tariff, or a supplement, or a page of a loose-leaf tariff, such as: basis books, car capacities, classifications, demurrage rules and charges, distance tables, station lists, special service rules and charges, storage charges, terminal and transit arrangements, and any publication containing tolls, absorptions, rules, regulations, or any complementary publications affecting the tolls to be charged.

By Order of the Board,

E. R. HOPKINS,

Secretary.

OTTAWA, September 22, 1952.

CIRCULAR No. 274

Amending Circular 215 and Supplement No. 1

DEAR SIR:—

File No. 35618—Head-on collisions.

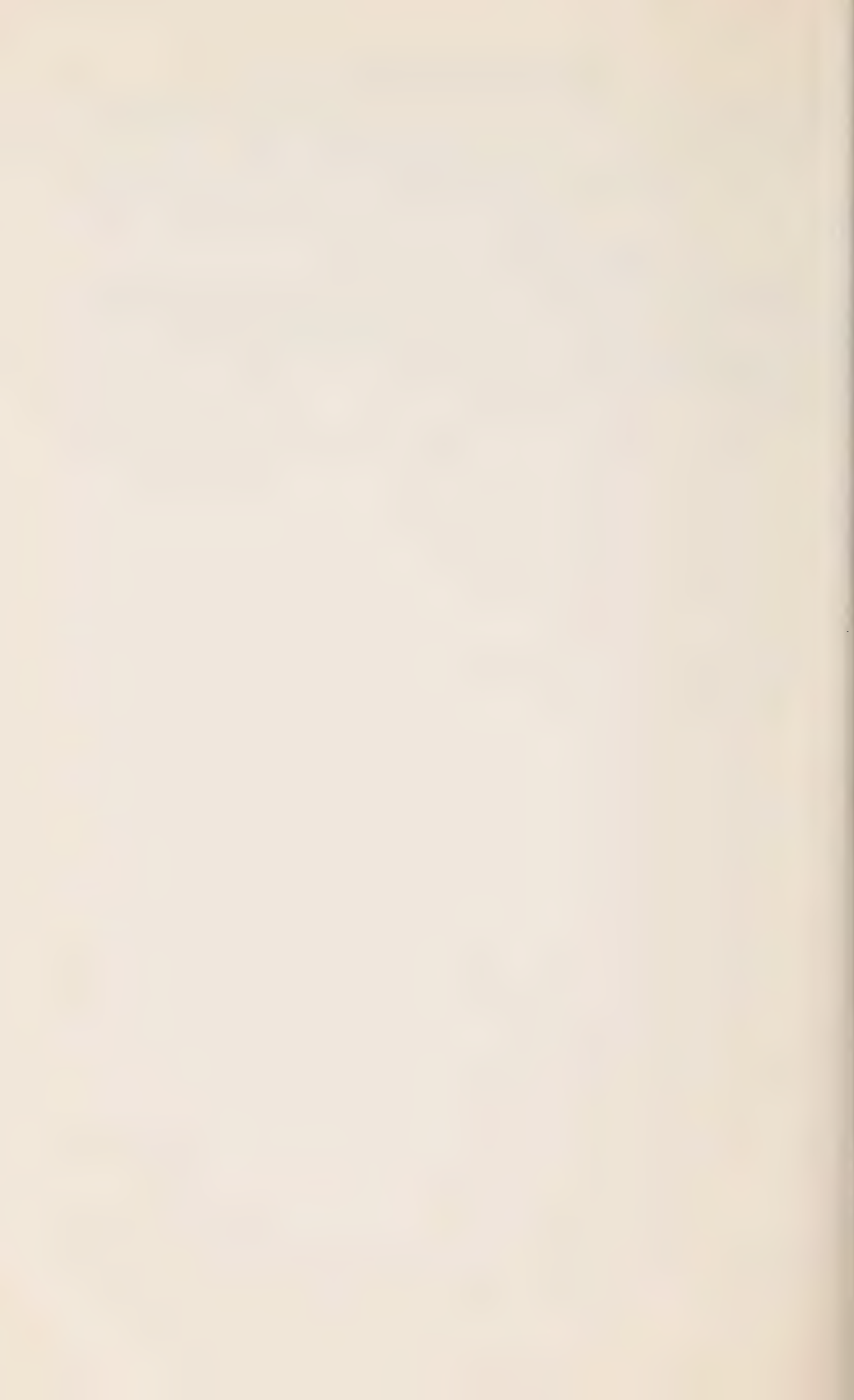
Referring to the Board's Circular No. 215 and Supplement No. 1 thereto dated December 12, 1927 and April 13, 1928, respectively, in respect to the reversal of rights to track between passenger trains at the meeting point.

Effective September 28th, 1952 the provisions of Circular No. 215 and Supplement No. 1 thereto are rescinded.

By Order of the Board,

E. R. HOPKINS,

Secretary.





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Canada's Department of Transport
for Canada, P. 101 12

DOMINION OF CANADA

FORTY-NINTH REPORT
of
**THE BOARD OF TRANSPORT
COMMISSIONERS FOR CANADA**

**FOR THE YEAR ENDED
DECEMBER 31**

1953



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THE BOARD OF TRANSPORT COMMISSIONERS
FOR CANADA

Hon. Justice JOHN D. KEARNEY, *Chief Commissioner*

W. H. M. WARDROPE, *Assistant Chief Commissioner*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner*

F. M. MACPHERSON, *Commissioner*

H. B. CHASE, C.B.E., *Commissioner*

O. A. MATTHEWS, *Commissioner.*

E. R. HOPKINS,
Secretary.

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REPORT OF THE BOARD OF TRANSPORT COMMISSIONERS FOR CANADA

TO THE GOVERNOR IN COUNCIL:

Pursuant to the provisions of Section 31 of the Railway Act, 1952, the Board of Transport Commissioners for Canada has the honour to submit its Forty-ninth Report for the year ended December 31, 1953.

GENERAL INTRODUCTION

The Board of Transport Commissioners for Canada was first established (then as the Board of Railway Commissioners) on February 1st, 1904, pursuant to the Railway Act of 1903. It is thus completing its first half-century in the administration of the Railway Act and other statutes. To mark this fiftieth anniversary, it has been thought appropriate to discuss briefly the origins and development of the Board and then to describe certain special features of its work in 1953.

The problem of railway regulation received public attention almost from the beginnings of railway construction in Canada. In the eighteen seventies and eighties in particular it was being widely contended that unrestricted competition had proven incapable of retaining railway passenger and freight rates at a fair and reasonable level. As a result, a Royal Commission was appointed in 1886 to consider and report upon the whole problem of railway regulation. The Commission reported, on the one hand, that the legislation then in force in England could not be imported to Canada because of important differences in the conditions prevailing in the two countries; and, on the other, that the United States experiment in establishing the Interstate Commerce Commission was so recent that Canada could not safely base its railway policy upon it. The Commission accordingly recommended that the control of Canadian railway rates be assigned by Parliament to the Railway Committee of the Privy Council, a committee of the cabinet. This recommendation was acted upon and the necessary legislation enacted in the same year, 1886.

The Railway Committee exercised its jurisdiction in this field for the ensuing seventeen years. However, it suffered from inherent weaknesses and defects which prevented its supervision from being very effective. It lacked continuity of tenure; its members lacked any specialized or continuing knowledge of railway matters; and it had a fixed location in Ottawa, which made it inconvenient and costly for parties to appear before it. Widespread criticism of railway rate practices continued, and at the turn of the century two reports were prepared for the government by Dr. S. J. McLean, then a professor of political economy at the University of Arkansas (and later assistant chief commissioner of the Board).

The first of these two reports outlined the experience of railway commissions in England and the United States; and the second, concerned with Canadian rate grievances, recommended the adoption in Canada of railway regulation by commission. These reports were printed as sessional paper No. 20A in the parliamentary session I-2 Edward 7, and were shortly followed by the enactment of the Railway Act of 1903. This Act substituted the Board of Railway Commissioners for the Railway Committee of the Privy Council and made provision for the increased regulation and control of railways by the Board. The introduction of the method of railway rate regulation by an independent commission has been described as the outstanding innovation made by that Act.

The Board was given sweeping powers in the field of railway regulation in relation to construction, maintenance, safety, operation and rates. While its powers were administrative and regulatory as well as judicial, it was constituted as a court of record and given the necessary authority to settle its own procedure, to summon and examine witnesses, and to enforce its decisions. Originally the Board consisted of three commissioners. However, it was soon realized that if it were to be a truly itinerant body its membership would have to be enlarged so that panels of the Board could hear cases at widely separated points, if necessary simultaneously, with a consequent saving of time and expense to the parties concerned. Accordingly, in 1908 its membership was increased to six—a chief commissioner, assistant chief commissioner, a deputy chief commissioner and three additional commissioners, all appointed by the Governor in Council for ten years during good behaviour and removable upon address of the Senate and House of Commons. The membership of the Board has remained constant since that time.

The jurisdiction of the Board has steadily expanded since the enactment of the Railway Act of 1903. Space will not permit an enumeration of every such expansion, but it should be mentioned in a general review such as this that the Board's jurisdiction has been extended, since its inception, to cover express companies, telegraph and telephone companies, international bridges and tunnels: in 1933, to the abandonment of operation of railway lines; in 1938, to the administration and approval of Agreed Charges negotiated between the railways and shippers, and to the regulation of rates on ships on certain inland waters of Canada; in 1949, to the oil and gas pipe lines of companies authorized under Special Act to construct and operate such pipe lines; and in 1953, to all companies authorized to construct or operate oil or gas pipe lines connecting two or more provinces or extending beyond the limits of a province.

The recital of these statutory enlargements of the Board's jurisdiction does not tell the complete story. Apart from or parallel with these, there has been a progressive and substantial increase in all phases of the Board's work since the end of World War II (during which War, the Board's activities, especially in rate matters, were severely curtailed by war-time regulations). There has since been a series of major applications for general increases in freight and telephone rates; a general freight rates investigation (the first in twenty-five years) together with a broad program of equalization of freight rates, both of which are continuing; far-reaching changes in the Railway Act with respect to tariffs and rates, including the declaration of a national freight rates policy; a nation-wide investigation of the whole problem of railway-highway crossings, including the status of the Grade Crossing Fund; and many new problems arising out of such recent developments as the entry of Newfoundland into union, and increased activity in the field of oil and gas pipe lines.

The activities of the Board were intensified in nearly all these fields during 1953, and the details are set forth summarily in the following sections of this Report. However there were five fields which, because of their character, have been singled out for special consideration in this introduction. These are (1) the hearings of the Board in implementation of the National Freight Rates Policy established in 1951 (often referred to as "Equalization"); (2) the nation-wide investigation conducted by the Board in 1953 with respect to railway-highway crossings; (3) developments in the field of oil and gas pipe lines; (4) the application of the Railway Association of Canada for the introduction of the "rate base and rate of return" method of fixing the level of freight rates in Canada; and (5) applications for increases in the general level of freight rates heard in 1953. Each of these five is discussed immediately hereunder.

(1) EQUALIZATION OF FREIGHT RATES

In 1953, the Board conducted hearings in every province of Canada, as well as national hearings in Ottawa, with a view to the establishment of a uniform class rate scale pursuant to the National Freight Rates Policy declared by the Parliament of Canada in Section 336 (formerly 332A) of the Railway Act. The Act declares that, with specified exceptions "every railway company shall, so far as is reasonably possible, in respect of all freight traffic of the same description, and carried on or upon the like kind of cars and conveyances, passing over all lines or routes of the company in Canada, charge tolls to all persons at the same rate, whether by weight, mileage or otherwise". This policy is usually, and is hereinafter, referred to briefly as "The Equalization of Freight Rates" or "Equalization".

The hearings referred to also formed a part of a General Freight Rates Investigation which the Board was enjoined to undertake (by Order in Council P.C. 1487 of April 7, 1948) with a view to the establishment of a fair and reasonable rate structure which would "under substantially similar circumstances and conditions" be equal in its application to all persons and localities. The investigation was interrupted by the appointment in December 1948 of the Royal Commission on Transportation, which sat for two years and (*inter alia*) recommended in effect the incorporation into the Railway Act of what is now the National Freight Rates Policy.

In order to facilitate and focus discussion at the regional hearings referred to, the Board had earlier (on December 12, 1952) issued a Judgment and Order prescribing an interim or tentative class rate mileage scale which was to become effective January 1, 1954, subject to objection in the interim. While this scale was not intended as final, it was the product of nearly a year's study by the Board and its traffic advisers, and, as stated in the judgment itself, it was hoped that "the class rate scale, which may be regarded as the foundation of the rate structure, will constitute a step forward beyond a working paper".

The Board accordingly set down the interim scale for regional hearings and toured Canada from Victoria, B.C., to St. John's, Newfoundland, during the six-month period from March to September, 1953. These hearings afforded parties across Canada an opportunity to show cause why the scale should not be established and to present evidence and make representations in respect of it.

At the regional hearings no alternative rate scales were submitted, although various suggestions were made for the modification of the Board's interim scale.

However, it was found necessary to hold further hearings in Ottawa (in October, November and December). The hearing in October was intended to be for final argument, but at this hearing each of the two principal Canadian railways proposed a new class rate scale in substitution for the Board's interim scale.

The Canadian National also estimated that it would take one year of tariff work to establish any new scale; the Canadian Pacific estimated that it would take two years.

Upon presentation of the two new railway scales at the hearing at Ottawa, on October 5, 1953, it became apparent that time would have to be given to the provinces and others to study these scales and that the Board after the final hearing would then be confronted with the necessity of considering three, and possibly more scales, because it was probable that when the railways filed new scales, other parties might want to make new counter-suggestions for other scales.

The matter was taken under consideration by the Board, and after Provincial Counsel had asked for a delay of several weeks in which to examine these new scales, an oral judgment was pronounced by the Chief Commissioner on the date above referred to, which, in effect, set forth that the statute required

the Board to take appropriate measures to equalize freight rates, that the statute had been in effect for two years during which time the Board took the necessary time to devise a uniform mileage scale; that the scale devised by the Board had been the subject of hearings for six months and that during the said period western Canada had not received any benefit under the statute; that the Board felt it incumbent upon it to bring in a measure of equalization without further delay and that after a study of the matter the Board had concluded that an Order should be issued requiring a reduction of five per cent in all class rates in western Canada, and would permit a compensating increase in eastern Canada not exceeding ten per cent; furthermore, that no action would be taken with respect to rates between eastern and western Canada for the time being, because the so-called "bridge" subsidy enacted by Parliament had already reduced the rates by approximately seven per cent; also no increase was permitted within, from or to the Maritimes.

The reduction in the rates within Western Canada became effective on November 15, 1953, and the railways also took advantage of the permission to make a general increase in the class rates (other than Competitive rates and Maritime rates) in Eastern Canada, by taking the ten per cent increase.

By the end of 1953, the Board had received no complaints as to the effects of this Order.

At the hearing of November 30, 1953, Counsel for the Province of Alberta indicated that he would submit still another scale, referred to as a "compromise scale".

The situation, as of December 31, 1953, was that the hearings were to continue on January 8, 1954, for final consideration of the various class rate scales thus far proposed.

(2) GRADE CROSSINGS

By Order in Council P.C. 1953-52 of January 14, 1953, the Board was enjoined to make an investigation and report on all phases of the problem of railway-highway crossings under the jurisdiction of the Parliament of Canada in respect of the "present and prospective need for the protection, safety and convenience of the public" including the adequacy of the Railway Grade Crossing Fund (the present position of which is outlined later in this Report).

Following a round table conference of interested parties convened by the Board on February 6, 1953, it was decided to hold nation-wide hearings on this problem and to combine such hearings, as far as practicable, with those to be held for the discussion of the Board's interim class rate mileage scale. Consequently, hearings on "Grade Crossings", in combination with those on "Equalization", were held in each province of Canada during the six-month period from March to September 1953. It was not found possible to hold final hearings in Ottawa before the end of 1953, but these were set down for hearing on February 3, 1954, at which time the submissions of the Canadian National Railways, the Canadian Pacific Railway Company, and those of any other interested parties, will be entertained.

(3) OIL AND GAS PIPE LINES

There were several important developments in 1953 arising out of the exercise of the Board's jurisdiction in the field of oil and gas pipe lines.

In the first place, by Order of the Board dated October 15, 1953, the Trans Mountain Oil Pipe Line Company was authorized to open its pipe line for the carriage of oil, after sectional hydraulic tests of the line had been made, under the Board's supervision, to ensure the safe carriage of oil at maximum pressures. The line was officially opened in that month, with the Chief Commissioner, the Honourable Mr. Justice John D. Kearney, representing the Board at the ceremony.

In 1952 this company had been authorized to construct an oil pipe line, 24" in diameter, from a point in the vicinity of Edmonton to a point in the vicinity of Vancouver, a distance of approximately 718 miles. Construction was proceeded with in 1952, and approximately forty per cent of the work of laying the line was completed in that year. Early in the Spring of 1953 the work was renewed, and plans of the remaining portions of the work approved by the Board.

In addition to the foregoing, on February 6, 1953, the Board approved the construction of one or more pipe lines for the transportation of oil from a point on the main pipe line near Sumas, B.C., to the International Boundary, a distance of 5.5 miles. As presently planned, the branch pipe line will be constructed in 1954, to coincide with the completion of refineries in the State of Washington.

There were also important developments in 1953 in connection with the oil pipe line of the Interprovincial Pipe Line Company. In 1950 this company constructed an oil pipe line from Redwater, Alberta, to the International Boundary, at Gretna, Manitoba, and extended its line to Superior, Wisconsin, through the United States, to a distance in all of about 1,100 miles.

In 1953 it was decided to extend the line from Superior, through United States territory, to Sarnia, Ontario, an additional distance of approximately 636 miles (the portion from the International Boundary to Sarnia coming under the Board's jurisdiction). Late in December 1953, authority was granted by the Board for the operation of this line. When in operation, the line will carry Alberta oil in a continuous pipe line to Sarnia, Ontario, a distance of approximately 1,735 miles. This will make it the longest continuous oil pipe line in the world.

With respect to gas pipe lines, the Board, on May 2, 1953, approved the construction of a pipe line for the transportation of natural gas from a point of connection with the West Coast Transmission pipe line in the vicinity of Brookmere to a point on the International Boundary in the vicinity of Osoyoos, B.C.

On October 11, 1952, the Board had granted to the West Coast Transmission Company permission to construct a pipe line for the transmission of natural gas from Pouce Coupe, Alberta, to Vancouver, B.C., including a branch line from Abbotsford, B.C., to a point on the International Boundary in the vicinity of Huntingdon, in all a distance of approximately 630 miles. No part or extension of the West Coast Transmission pipe line has yet been proceeded with pending the completion of negotiations with United States authorities for permission to export natural gas from Canada.

In conclusion, it should be mentioned that the Pipe Lines Act was amended in December 1953, so as to give the Board jurisdiction over all companies authorized to construct or operate oil or gas pipe lines connecting two or more provinces, or extending beyond the limits of a province, and requiring these companies to be authorized by Special Act of Parliament before constructing or operating any new extra-provincial pipe line.

(4) APPLICATION FOR A RATE BASE AND RATE OF RETURN METHOD OF FIXING THE LEVEL OF FREIGHT RATES

One of the most important cases to come before the Board was actively continued during 1953. The main features of the application of July 14, 1952, of the Railway Association of Canada, were that the Board establish the net investment of the Canadian Pacific Railway Company in its railway property, constitute the said investment as a rate base, and fix for Canadian Pacific a fair rate of return thereon of not less than $6\frac{1}{2}$ per cent. This application if granted in its entirety would mean the abandonment of the method heretofore used by the Board, known as the "requirements" method, whereby the Board determines the financial needs of the railways, taking Canadian Pacific as the

yardstick company, for common and preferred stock dividends, fixed charges and retained earnings, and the substitution of what is called the "rate base—rate of return" method under which a return on net railway investment would be the criterion for the determination of the permissible earnings and level of rates based thereon.

Incorporated in the application was a request that if the Board approved the principle of a "rate base—rate of return", an immediate increase of nine per cent in freight rates be granted. This was calculated to produce a rate of return of five per cent on the rate base suggested, leaving the matter open for a further increase in freight rates to return finally the $6\frac{1}{2}$ per cent originally requested.

The hearings in respect of the rate base—rate of return application and the request for a further increase of nine per cent continued at various times during 1953. Final sittings were held at Ottawa in October. The transcript covers thousands of pages of evidence and in addition there were approximately 200 exhibits, including statistical data and graphs. Witnesses called by the railways and by the provinces included many Canadian and United States experts in the investment, public utility and railway traffic and rate fields. Counsel for one of the provinces stated that no more important application had ever been made to the Board. At the close of 1953 the Board was preparing its decision.

(5) APPLICATIONS FOR GENERAL INCREASES IN FREIGHT RATES

By the application dated July 14, 1952, above referred to, the Railway Association of Canada also requested authority to make an immediate general increase of seven per cent in freight rates due to increased wage awards and further increase in the cost of materials and supplies. The request for the immediate general increase of seven per cent was later amended to eight per cent, and was heard and dismissed by the Board's judgment dated October 24, 1952.

The hearings in respect of the other aspects of the application commenced in November, 1952. However, in January 1953, the railways amended their application and, among other things, again requested authority to make an immediate general increase of seven per cent in freight rates because of changed conditions and increased costs of railway operation. That request was heard and granted by judgment and order dated March 6, 1953. The Board came to the conclusion that the increase was necessitated by the existing costs of railway operation which had shown an increase since the 17 per cent increase judgment dated January 25, 1952, and that the estimated net rail earnings of the Canadian Pacific Railway Company as re-cast by the Board for the calendar year 1953, including the seven per cent increase, and applied in relation to Canadian Pacific's net rail investment would be within the requirements which were allowed in testing the reasonableness of earnings of \$46,644,000 permitted by the 17 per cent judgment to cover fixed charges, dividends and surplus (retained earnings) of Canadian Pacific.

AMENDMENTS TO STATUTES

During the year 1953, there were no amendments to the Railway Act or to the Transport Act.

It is to be noted, however, that in the Revised Statutes of Canada, 1952, which came into force on September 15, 1953, pursuant to a Proclamation of the Governor in Council, dated July 2, 1953, the consolidated Railway and Transport Acts are to be found in Chapter 234 and 271 respectively.

It is also to be noted that the Pipe Lines Act, Chapter 211, Revised Statutes of Canada, 1952, was amended by an Act of Parliament (Bill No. 10), assented to on December 16, 1953.

APPLICATIONS SUBMITTED TO THE BOARD

During the year ended December 31, 1953, 2,134 applications were submitted to the Board.

PERSONNEL OF THE BOARD

Mr. O. A. Matthews was appointed a member of the Board by Order in Council P.C. 4404, dated October 30, 1952, effective January 1, 1953.

TECHNICAL SERVICES

Besides its Administrative and Legal Branches, the Board is composed of four main technical departments, namely:—the Traffic, the Engineering, the Operating, and the Bureau of Transportation Economics. Summaries of the activities of these departments, during 1953, are contained in the Appendices to this report.

PUBLIC SITTINGS OF THE BOARD

During the year covered by the period from January 1, 1953, to December 31, 1953, the Board held 77 public sittings at which 50 cases were heard. The number of public sittings held in the various provinces was as follows:

Province	Number
Ontario.....	35
Quebec.....	12
Manitoba.....	3
Saskatchewan.....	5
Alberta.....	7
British Columbia.....	9
Nova Scotia.....	2
New Brunswick.....	1
Prince Edward Island.....	1
Newfoundland.....	2
Total.....	77

LIST OF APPLICATIONS HEARD AT PUBLIC HEARINGS OF THE BOARD FOR THE YEAR ENDED DECEMBER 31, 1953

1. Application of Railway Association of Canada for general increase in rates insofar as it relates to the request that the Board fix as a fair return for the C.P.R. in respect of its railway enterprise a return of not less than $6\frac{1}{2}\%$ upon its net investment.

File No. 46920

2. In the matter of the consideration of the apportionment of the remainder of the cost of construction as well as the cost of maintenance of the subway authorized to be constructed at the intersection of the highway and the railway of the C.N.R. at mileage 19.2 Rimouski Subdivision, in the Town of Rimouski, Province of Quebec, in pursuance of the provisions of Board's Order No. 76802, dated June 19, 1951.

File No. 26782-313

3. In the matter of the application of the West Lorne Lumber Company Limited for transit or stop-off privileges on lumber moving through West Lorne, Ontario, via the Chesapeake and Ohio Railway and destined to points in the United States.

File No. 8641-89

4. In the matter of the application of The Toronto, Hamilton and Buffalo Railway Company for Orders under sections 181, 182, 183, 193, 252 and 255 of the Railway Act:

(a) Authorizing the construction, maintenance and operation of a branch line of railway or spur extending from a point on the Belt Line of the Applicant immediately east of Wellington Street in the City of Hamilton to a junction with the tracks of the C.N.R. as shown on Railway plan No. 356 filed with the application.

(b) Authorizing the Applicant to carry the proposed branch line across Wellington Street and Ferrie Street.

(c) Authorizing the Applicant to join the said branch line with the tracks of the C.N.R. at or near the point marked "N" as shown on the said plan.

(d) Authorizing the Applicant to use the tracks of the C.N.R. from the said point "N" to the respective junctions of the said tracks with the south side of Burlington Street at points "C", "P" and "E" and to have and exercise full right and power to run and operate its trains over and upon the said tracks freely and jointly with the C.N.R.

(e) Authorizing the Applicant to operate over the tracks owned by The Hamilton Harbour Commissioners commencing on the south side of Burlington Street and running across Burlington Street to and into the lands of the said Hamilton Harbour Commissioners.

(f) Directing The Hamilton Hydro Electric System, United Gas and Fuel Company of Hamilton, The City of Hamilton, The Steel Company of Canada, and the Bell Telephone Company of Canada to reconstruct, alter or change their respective works in order to enable the carrying out of the changes shown on the said plan.

File No. 42303

5. In the matter of the consideration of the apportionment of the remainder of the cost of installation as well as the cost of maintenance of the protection installed at the crossing of Pottery Road and the railway of the C.P.R. at mileage 0.66 North Toronto Subdivision, in the Township of East York, in pursuance of the provisions of Board's Order No. 77601, dated October 22, 1951.

File No. 46546

6. In the matter of the application of the Village of Forest Hill, Ontario, for an Order directing the C.N.R. to discontinue the use of the passing track which runs off the south side of their line in the said village.

File No. 26825-138

7. In the matter of the application of C.P.R. and C.N.R. for an Order prohibiting publication and distribution of any book, document or paper not sanctioned by the Board or the Railway Association of Canada Committee on Operating Rules that purports to interpret or explain the Board's Uniform Code of Operating Rules, including a proposed book entitled "Guide to Train Rules" by J. F. Crosson, or for an Order prohibiting the use by railway employees engaged in the operation of trains of any such book, document or paper.

File No. 43757-10

8. In the matter of the application of British Columbia Telephone Company, dated October 22, 1952, for approval of proposed increased rates and charges.

File No. 32560-35

9. In the matter of the application of the Great Northern Railway Company under sections 51 and 259 and all other relevant sections of the Railway Act for an Order directing the City of Vancouver to assume the Applicant's share of the cost of maintaining and protecting the highway crossing over the tracks of the C.P.R. between Raymur and Campbell Avenues in the City of Vancouver, British Columbia, and amending Order No. 47259, dated August 25, 1931, accordingly.

File No. 572·24

10. In the matter of the Board's Order No. 79961, dated October 11, 1952, authorizing the Department of Highways of the Province of Alberta to widen the highway where it crosses the company pipe line of the Interprovincial Pipe Line Company between the southeast quarter of Section 32, Township 52, Range 23, West Fourth Meridian and the southwest quarter of Section 33, Township 52, Range 23, West Fourth Meridian, and directing the Interprovincial Pipe Line Company to relocate its company pipe line at the said crossing;

And in the matter of the consideration of the apportionment of the cost of carrying out the said work.

File No. 45371·2·41

11. In the matter of the application of Trans Mountain Oil Pipe Line Company, hereinafter called the "Applicant", under sections 11 and 12 and other relevant sections of The Pipe Lines Act, for an Order granting the Applicant leave to construct a pipe line, consisting of one or more lines of pipe, for the transportation of oil from a point in Section 28, Township 19, East of the Coast Meridian, in the Province of British Columbia, thence in a southwesterly direction for approximately 5·5 miles to a point on the International Border between Canada and the United States of America in Section 6, Township 19 East of the Coast Meridian.

File No. 45371·14·51

12. In the matter of the application of the Attorney General of the Province of British Columbia under the provisions of the Railway Act for an Order directing (1) that the C.P.R. Company, the E. & N. Railway Company, the C.N.R., the N.A.R.C. and other member companies of the Railway Association of Canada reduce the maximum passenger fares between points in British Columbia to a maximum amount of four cents per mile; (2) that where only first class single fare exceeds four cents a mile and is to be reduced to a maximum of four cents a mile the return fares between the said points be reduced to amounts not exceeding the return fares granted in other provinces of Canada for similar distances and class of fare; (3) that all passenger fares charged by the said railway companies between points in British Columbia be reduced to an amount per mile not exceeding the tolls charged for similar distances and class of fares in the other provinces of Canada.

File No. 47054

13. In the matter of the application of the Granby Consolidated Mining, Smelting and Power Company Limited under sections 314 to 332 of the Railway Act (1) for an Order directing that in order to determine and apply rates named in Supplement No. 20 to C.P.R. Tariff W110-C and any and all subsequent or substituted tariffs, until further order of the Board, the export price of copper shall be deemed to be fourteen cents

per pound; (2) for an Order that the tolls to be established shall not be made conditional upon shipment in quantities averaging not less than five thousand net tons per day for each four-month period.

File No. 1179·57

14. Application of Railway Association of Canada for general increase in rates (as amended January 20, 1953) insofar as it relates to the request for an immediate increase of 7% in freight rates (10 cents to 20 cents per ton on coal and coke).

File No. 46920·2

15. Application of Railway Association of Canada for general increase in rates (as amended January 21, 1953) insofar as it relates to the request that the Board establish a rate base representing the net investment in C.P.R. railway property and determine a fair rate of return thereon.

File No. 46920·1

16. In the matter of the application of the British Columbia Lumber Manufacturers' Association for an Order of the Board under sections 33, 314, 316, 317, 319, 325 and 344 of the Railway Act directing the C.P.R. and the C.N.R. to remove the discrimination in the rates against shipments of lumber from the West Coast to Prairie points between Regina and Winnipeg inclusive.

File No. 26901·62·6

17. The Board's Judgment and Order of December 12, 1952, with reference to the Equalization of Freight Rates.

File No. 45464

18. Order in Council P.C. 1953-52 of January 14, 1953, with reference to Grade Crossings.

File No. 11026·82

19. In the matter of the application of the City of Regina for an Order of the Board directing the immediate replacement of a portion of the east wall of the subway at Broad Street, in the City of Regina, from the south side of the superstructure to the south side of the stairway; that the new wall be designed and constructed to carry the added load created by the close proximity of the ice house; that adequate provision be made to prevent the moisture from the stored ice and surface water percolating into the back-fill behind the wall; that necessary repairs be made and that the ice house foundations be stabilized; that the work referred to above be carried out at the expense of the C.P.R.

File No. 4112

20. In the matter of the consideration of the apportionment of the remainder of the cost of construction as well as the cost of maintenance of the subway authorized to be constructed at the intersection of Fourth Street West and the railway of the C.P.R., in the City of Calgary, Alberta, in pursuance of the provisions of Board's Order No. 75324, dated October 10, 1950, as amended by Orders Nos. 78358, 78764 and 79533, dated February 21, April 15 and August 6, 1952, respectively.

File No. 2634

21. In the matter of the application of the Manitoba & Saskatchewan Coal Company Limited, Old Mac Coal Limited, Western Dominion Coal Mines Limited, under section 325 and all other relevant sections of the

Railway Act, for an Order reducing the rates on lignite coal shipped from the Estevan District in Saskatchewan so that they will bear a proper relationship to the rates upon coal shipped from points in Alberta on the ground that the present rates are unjustly discriminatory against the Applicants and on the further ground that applying the value of service principle rates should be varied in the carriage of coal based on B.T.U. content.

File No. 27425-196

22. In the matter of the application of the City of Quebec, Province of Quebec, under sections 39, 257 and 262 of the Railway Act, for an Order directing the C.P.R. to remove its tracks on Dalhousie Street between St. Andre Street and Findlay Market and to divert the said tracks to Prince of Wales Street, Quebec; and for an Order authorizing a contribution from the Railway Grade Crossing Fund towards the costs of the said works and apportioning the remainder of the costs between the interested parties.

File No. 37088

23. In the matter of the application of the City of Lachine, Province of Quebec, for an improvement in the protection now provided at the crossing of 55th Avenue, Lachine, and the railway of the C.P.R., mileage 3-85 Winchester Subdivision;
And in the matter of the apportionment of the cost of such improvement if any is ordered.

File No. 27156-304

24. Consideration of the matter of improvement of safety conditions at the subway at the intersection of Highway No. 29 and the railway of the C.N.R., mileage 10-12 Montfort Subdivision, in the Village of St. Eustache-sur-le-Lac, P.Q.;
And consideration of the matter of apportionment of the costs if such improvement is ordered.

File No. 2342-34

25. In the matter of the consideration of further protection to be provided at the crossing of St. Joseph Boulevard, in the Town of St. Joseph, County of Drummond, Province of Quebec, and the railway of the C.N.R., mileage 98-5 Drummondville Subdivision;
And in the matter of the apportionment of the costs if further protection is ordered.

File No. 26782-191

26. In the matter of the application of Interprovincial Pipe Line Company, hereinafter called the "Applicant", under Sections 11 and 12 of The Pipe Lines Act, for an Order granting the Applicant leave to construct a pipe line consisting of one or more lines of pipe, for the transportation of oil from a point on the International Boundary between Canada and the United States of America located in the St. Clair River in the vicinity of the City of Sarnia, in the Province of Ontario, to one or more points within or in the vicinity of the said City of Sarnia, the said line being approximately six miles in length.

File No. 45371-2-42

27. In the matter of the application of Westcoast Transmission Company Limited, hereinafter called the "Applicant", under sections 11 and 12 and other relevant sections of The Pipe Line Act, for an Order granting the Applicant leave to construct a pipe line for the transportation of natural gas from a point in the vicinity of the Village of Brookmere, in the Province of British Columbia, through the Town of Princeton to a point on the International Boundary in the vicinity of the Village of Osoyoos, in the Province of British Columbia.

File No. 45371-3-5

28. In the matter of the application of the British Columbia Telephone Company under the provisions of its Special Act 6-7 Geo. V (1916) ch. 66 as amended by 4-5 Geo. VI (1940-41) ch. 36 and by 11 Geo VI (1947) ch. 86 and by 15 Geo. VI (1951) ch. 85 for an Order approving the terms and conditions of a proposed issue and sale or other disposition of not more than 160,000 Ordinary shares of its capital stock of a par value of \$25.00 each.

File No. 29885-13

29. In the matter of the application of the Corporation of the Parish of St. Eustache, Province of Quebec, for the opening of a public crossing over the line of the C.N.R. in Lot No. 236, located in the said Parish, at mileage 14-65 Montfort Subdivision.

File No. 46560

30. In the matter of the application of the City of Sorel, Province of Quebec, for the installation of automatic protection at the crossing of the line of the C.N.R. and King Street, in the said City at mileage 44-49 Sorel Subdivision;

And in the matter of the apportionment of the costs if such installation is ordered.

File No. 26782-292

31. In the matter of the consideration of further protection to be provided at the crossing of Cascades Street (Sir Wilfrid Laurier Highway) and the C.N.R. in the City of St. Hyacinthe, Province of Quebec, mileage 127 Drummondville Subdivision;

And in the matter of the apportionment of the costs if further protection is ordered.

File No. 36600-40

32. In the matter of the application of the City of Medicine Hat, Alberta, for an Order of the Board authorizing the construction of a subway at the crossing of First Street and the C.P.R., and a pedestrian underpass at the crossing of Third Street and the C.P.R., also the closing of the crossing over the C.P.R. right-of-way on Second Street, and granting a contribution from the Railway Grade Crossing Fund towards the cost of the proposed works.

Files Nos. 9437-515

21979

Case 2488

Case 2490

33. In the matter of complaints of various interested parties with respect to the passenger train service given by the New York Central Railroad Company on its line between Malone, N.Y., and Montreal, P.Q., following the recent cancellation of trains Nos. 4 and 5.

File No. 28420

34. In the matter of the application of the Interprovincial Pipe Line Company, under section 20 of The Pipe Lines Act, for approval of plan, profile and book of reference, being Sheet numbered CAN. 2, showing the location of the deviation in the Applicant Company's pipe line from a point on the East bank of the St. Clair River in the vicinity of the City of Sarnia in the Province of Ontario being opposite lots 9 and 10 of the Riverview Subdivision of the City of Sarnia, to a point in the City of Sarnia being on the westerly limit of Indian Road opposite lot 11, Block B, Plan 13, Township of Sarnia, County of Lambton, Province of Ontario, and from a point upon the said above-described pipe line located approximately 114.5 feet West of the point of intersection of the centre line of the said pipe line with the centre line of the Chesapeake and Ohio Railway, to a point on the North boundary of the property owned by Canadian Oil Companies Limited, in the Township of Moore, all as shown on the said Plan Can. 2;

And in the matter of the application of the said Company, under section 31 of The Pipe Lines Act, for leave to carry its Company pipe line across all streets, roads, railways, irrigation ditches, underground telegraphs, telephone or electric power lines or pipe lines, as shown on the plan referred to above.

File No. 45371.2.42

35. In the matter of Order No. 81490, dated May 29, 1953, which postponed the effective date of Item C-76-B, C-76-C and Rules 3A and 14 published in Supplements Nos. 63 and 64 to C.F.A., Agent J. F. Flynn's Tariff C.T.C. No. 529 until further order of the Board;

And in the matter of the question whether or not the rates presently established on lumber and lumber products from British Columbia to points east of Port Arthur-Fort William are competitive rates.

File No. 26901.62.7

36. In the matter of fixing a date for the hearing of supplementary argument and evidence, if any, with respect to the inclusion or otherwise of "Donations and Grants" in the investment of the C.P.R. in its railway enterprise, arising out of the application of the Railway Association of Canada for the establishment of a rate base, rate of return, etc.

File No. 46920.1

37. In the matter of the application of the C.P.R. as lessee exercising the franchises of The Campbellford, Lake Ontario and Western Railway Company, under sections 181, 182, 252 and 256 of the Railway Act for authority to construct, maintain and operate branch line of railway A-B (industrial spur) from a point on the Applicant Company's right-of-way at mileage 73.0 Oshawa Subdivision, thence across Lots 5, 4, 3 and 2; across Champlain Road, Highway No. 2A, Bloor Street, by means of an overhead bridge; Lots 16 and 15; across C.N.R. by means of an overhead bridge; Lot 15; Stevenson Road at grade to a point in Lot 14; at station 86-25: also wye track C-D in Lots 7 and 5 and five sidings in Lot 15, all in the City of Oshawa, Province of Ontario, as shown in red on Plan and Profile and described in book of reference combined No. M-55-19-26R, dated May 11, 1953, on file with the Board under file No.

29560.11

38. In the matter of the application of The Bell Telephone Company of Canada, dated August 26, 1953, under the provisions of Chapter 81 of the Statutes of Canada 11-12 George VI, for an Order approving the terms and conditions of the issue, sale or other disposition of not more than 1,940,000 shares of its capital stock.

File No. 36730-2

39. In the matter of the application of The Canadian Industrial Traffic League under sections 33, 34, 325 and all other relevant sections of the Railway Act, for an Order requiring the railways to consolidate and publish in one tariff all rules, regulations and tolls respecting demurrage which are presently contained in several tariffs.

And in the matter of the League's request that "the Board appoint a National Demurrage Committee made up of representatives of the Railways, the shipping public and the Board, with direction to formulate an up-to-date code of Demurrage Rules to be published in one tariff".

File No. 1700

40. In the matter of the application of A. Dandurand, Secretary, Committee for the Conservation of the Peoples Railway Rights, for reconsideration by the Board of its Order No. 81134, dated April 2, 1953, authorizing the C.N.R. to discontinue all passenger train service on the St. Armand Subdivision between the Canada-United States border and St. Johns, Province of Quebec.

File No. 26323

41. In the matter of the application of the City of Brandon for an Order of the Board directing the re-location of the Transfer Track of the C.P.R. from the west to the east end of the said City, and apportioning the cost of the said re-location between the interested parties.

File No. 22664-18

42. In the matter of the application of the City of Edmonton for a rehearing of the application of the C.P.R., dated October 30, 1930, which gave rise to Orders of the Board Nos. 47708 and 47759, dated November 18, 1931 and November 27, 1931, respectively, the latter Order authorizing the C.P.R. among other things to construct three additional tracks across 113th, 114th and 115th Streets and certain lanes, in the City of Edmonton.

File No. 37661

43. In the matter of the application of the Corporation of the Township of Etobicoke, Ontario, for an Order of the Board directing the separation of the grade at Royal York Road, immediately north of Dundas Street, in the said Township, where the said road is crossed by the C.P.R.

File No. 26727-159

44. In the matter of the application of the City of Toronto, Ont., requesting under sections 39, 257 and 259 of the Railway Act, an Order of the Board directing the C.N.R. to construct a subway under the tracks of their Oshawa Subdivision on Pape Avenue, Toronto, apportioning the cost of the work between the interested parties and authorizing a grant from the Railway Grade Crossing Fund towards the said cost.

File No. 9437-971

45. In the matter of the application of the City of Toronto, Ontario, requesting under sections 39, 257 and 259 of the Railway Act an Order of the Board directing the C.N.R. to construct a subway under the tracks of their Oshawa Subdivision on Greenwood Avenue, Toronto, apportioning the cost of the work between the interested parties and authorizing a grant from the Railway Grade Crossing Fund towards the said cost.

File No. 1682

46. In the matter of the application of the Corporation of the Township of Etobicoke, Ontario, for an Order of the Board directing the separation of the grade on Dundas Street, in the said Township, where it is crossed by the Canadian Pacific Railway.

File No. 9437-105

47. In the matter of the renewed application of the Municipal Corporation of the Parish of St. Fabien, in the Province of Quebec, for an Order authorizing the construction of a highway connecting with Jean, Boucher and Rioux Streets and leading to the station at St. Fabien over the property of the C.N.R.

File No. 46168

48. In the matter of the application of the Corporation of the City of Toronto, Ont., under sections 39, 260, 262 and such other appropriate sections of the Railway Act, ch. 234, R.S.C. 1952, for an Order requiring the C.P.R. Co. to proceed with the grade separation on Symington Avenue, Toronto, under the tracks of the C.P.R.'s North Toronto Subdivision as provided in Order of the Board No. 35037, dated May 9, 1924, and for an Order apportioning the cost of the work between the various parties interested and affected by the Order for construction, subject to a contribution from the Railway Grade Crossing Fund.

File No. 9437-1271

49. In the matter of the application of the Toronto and York Roads Commission for an Order directing the replacement of the existing C.N.R. and C.P.R. bridges on the old Weston Road highway (Rogers Road) in the Township of York;

And in the matter of the apportionment of the cost of the said replacement.

File No. 29215

50. In the matter of the application of the City of Toronto, Ont., under sections 39, 260, 262 and such other appropriate sections of the Railway Act, ch. 234, R.S.C. 1952, for an Order requiring the C.N.R. to construct a subway on Davenport Road, Toronto, under the tracks of the C.N.R.'s Newmarket Subdivision and for an Order apportioning the cost of the work between the interested parties affected by the Order for construction subject to a contribution from the Railway Grade Crossing Fund.

And in the matter of the apportionment of the cost of installing and maintaining flashing light signals, bells and short arm gates in lieu of the former gate protection at the crossing of the C.N.R. and Davenport Road, City of Toronto, which works were ordered by Board's Order No. 80775, dated February 6, 1953.

File No. 132-1

INFORMAL MATTERS

The number of matters dealt with informally as distinguished from matters heard at public sittings, continue to constitute a high percentage of the total applications and complaints dealt with by the Board; that is to say, of a total of 2,134 applications and complaints dealt with by the Board, 97·66 per cent were disposed without the necessity of a formal hearing. These applications and complaints, dealt with and settled without the necessity of a formal hearing, entailed in many instances a considerable amount of enquiry and consideration on the part of the Board and its officials, and covered a wide range of subjects within the jurisdiction of the Board.

APPEALS FROM JUDGMENTS OF THE BOARD

In 1953 there were two appeals to the Governor in Council from Judgments of the Board.

The first appeal was by the Maritime provinces and Manitoba, Saskatchewan, Alberta and British Columbia from the Judgment and Order of the Board dated March 6, 1953, which authorized a general increase of 7% in freight rates. The appeal was dismissed by Order in Council P.C. 1953-1457, dated September 17, 1953.

The second appeal was by the Minister of Highways of the Province of Ontario from Order of the Board No. 81573, dated June 15, 1953, which authorized Canadian National Railways to construct an industrial spur across certain highways near Picton, Ontario. This appeal was also dismissed by Order in Council P.C. 1953-1973, dated December 17, 1953.

No Judgments were appealed to the Supreme Court of Canada in 1953.

DECISIONS OF THE BOARD

The Board's Judgments, Orders, Rulings and Regulations are published fortnightly by the Queen's Printer. 1953 proceedings are reported in Volumes 42 and 43 J.O.R. & R. The Board's judgments are also reported in Canadian Railway and Transport Cases.

Brief notes on a number of the judgments given in 1953 appear below:

APPLICATION OF CANADIAN PACIFIC RAILWAY COMPANY AND CANADIAN NATIONAL RAILWAYS FOR AN ORDER PROHIBITING PUBLICATION OF ANY BOOK INTERPRETING OR EXPLAINING THE BOARD'S UNIFORM CODE OF OPERATING RULES.

43 J.O.R. & R. 10

A proposed book entitled a "Guide to Train Rules" was the principal subject of this application. The railways requested that the Board prohibit its publication and its use by railway employees. The Board refused the application, holding that the Board's power to prohibit publication and use was doubtful and in any event a prohibiting order would be illusory and unenforceable; that the instructing of railway employees is in the railways' hands and they can have their Rule Instructors instruct the employees that they are to be governed by the interpretation given by the Rule Instructors and not by interpretations which may be contained in books such as the one in question.

APPLICATION OF BRITISH COLUMBIA TELEPHONE COMPANY FOR APPROVAL
OF INCREASED RATES.

43 J.O.R. & R. 32 & 58

An interim decision was given on December 4, 1952, in this application—42 J.O.R. & R. 251. The final hearing was held in Vancouver and Victoria in February and March 1953, following which judgment was given on March 24 authorizing certain increases which were estimated to yield approximately \$2,960,000, including a Surplus of \$698,798. The increase which was granted in the interim judgment was calculated to provide the sum of \$1,739,047. The sum originally asked was voluntarily reduced by the Company by the time the final hearing took place to the extent of \$350,000 by reason of announced reduction in Federal corporate income tax and it was further voluntarily reduced to the extent of \$40,000, being 5% off the rate of commission then being paid to Dominion Directory Company Limited in compensation for securing advertising in the applicant's directory. The Board also deducted the sum of \$110,000 in connection with Interest during Construction. This left a sum of approximately \$725,000 which the Board allowed instead of approximately \$1,225,000 which would otherwise have been required. The Board was satisfied that prices paid by the Company under its Supply Contract were not greater than reasonable and should be allowed as legitimate expenses. The Service Contract was not seriously challenged and payments thereunder were found to be reasonable expenses that should be allowed for rate making purposes. Increased rates designed to yield the necessary revenues were authorized.

APPLICATION OF TRANS MOUNTAIN OIL PIPE LINE COMPANY FOR LEAVE
TO CONSTRUCT AN OIL PIPE LINE TO THE INTERNATIONAL BORDER.

43 J.O.R. & R. 1.

This was an application for leave to construct a pipe line which would extend to the International Border from a point in British Columbia on Trans Mountain's line from Alberta to Vancouver which had been previously authorized.

The Province of Alberta indicated that it had no objection and neither did the Province of British Columbia object. The Department of Trade and Commerce advised that it was prepared to issue the necessary permit for construction of the line and export of oil. The Board was satisfied as to the financial responsibility of the Company, that there is a sufficiency of oil for the project and a potential market, and that no public interest would be adversely affected by the granting of the application, and therefore gave leave to construct the line.

APPLICATION OF INTERPROVINCIAL PIPE LINE COMPANY FOR LEAVE TO CONSTRUCT
AN OIL PIPE LINE FROM A POINT ON THE INTERNATIONAL BORDER NEAR SARNIA
TO THE VICINITY OF SARNIA.

The Company had previously obtained leave of the Board to construct and had constructed a pipe line from Alberta to the International Border. The line then carried on into the United States. The line here sought would take Alberta oil back to refineries at Sarnia via the previously constructed line. The application was granted, as the Board was satisfied in all respects.

APPLICATION OF THE ATTORNEY GENERAL OF BRITISH COLUMBIA FOR REMOVAL
OF THE SO-CALLED MOUNTAIN DIFFERENTIAL IN PASSENGER FARES AND SLEEPING
AND PARLOUR CAR CHARGES.

43 J.O.R. & R. 35

Oral judgment was given on March 24, 1953, at Vancouver after a hearing there. The Mountain Differential in passenger fares and freight rates had been a matter of contention ever since the differential was first established many years

ago. In the case of freight it was partially removed by action of the Board in 1927 and entirely removed in 1949. The Board found that the perpetuation of the differential was not justified and should be eliminated and an order was made accordingly.

APPLICATION OF WESTCOAST TRANSMISSION COMPANY LIMITED FOR LEAVE TO
CONSTRUCT A NATURAL GAS PIPE LINE FROM BROOKMERE, B.C., TO THE
INTERNATIONAL BOUNDARY.

43 J.O.R. & R. 119

This application concerned the second phase of the applicant's project, which was a pipe line system designed to transmit natural gas from the Peace River areas of Alberta and British Columbia to two market areas in British Columbia and the States of Washington, Oregon and Idaho. The first phase was heard by the Board and the application was granted in 1952. The second phase was for leave to construct the line to connect with the first line near Brookmere, B.C., and then extend southerly through the Town of Princeton to the International Boundary where it would connect with a pipe line system there. The Provinces of Alberta and British Columbia stated that they had no objection and the Department of Trade and Commerce advised that the Department was prepared to issue the necessary licenses for construction of the line and export of gas. The Board was satisfied in all relevant respects and granted the application.

IN THE MATTER OF THE SO-CALLED HOLD-DOWN OF THE CROW'S NEST PASS RATES
IN RESPECT OF LOCAL MILEAGE RATES ON GRAIN AND GRAIN PRODUCTS WITHIN
WESTERN CANADA AT INTERMEDIATE POINTS IN THE DIRECT LINE OF TRANSIT
BETWEEN PRAIRIE POINTS AND FORT WILLIAM.

43 J.O.R. & R. 253

This was mainly a question of law as to the Board's power to deal with the hold-down.

The Board issued a lengthy judgment in this matter reviewing the origin and application of the hold-down, judgments in respect thereto, and Crow's Nest Pass rates generally. After a hearing the Board concluded that the so-called long-and-short haul provisions of the present section 317(5) of the Railway Act do not apply to the domestic grain traffic in question in Western Canada because of differences in circumstances and conditions under which that traffic, on the one hand, and the grain traffic referred to in section 328(5), on the other hand, are carried; also that Crow's Nest Pass rates on grain and flour from Prairie points to Fort William and Port Arthur are essentially export competitive rates, the principal purpose of which was to assist the marketing of Western Canadian grain and flour in world markets outside of Canada. Consequently the fixing of just and reasonable domestic grain and grain products rates within Western Canada is not restricted or circumscribed by the provisions of section 317(5) of the Railway Act; although, of course, the rates at intermediate points must be just and reasonable. Before making changes in existing rates the Board stated that it would give parties an opportunity to be heard further as to the factual situation and the effect that changes might have.

(sgd) R. KERR,
Counsel,
Board of Transport
Commissioners for Canada.

January 25, 1954.

LIST OF CASES APPEALED TO THE SUPREME COURT FOR CANADA FROM
FEBRUARY 1, 1904 TO DECEMBER 31, 1953

File No.	Subject	Decision
643	Montreal Terminal Ry. Co. v Montreal St. Ry. Co. Pius IX Ave. Jurisdiction.....	Allowed
1492	James Bay Ry. Co. v G.T.R. Co. Crossing Belt Line Spur. Question of Law.....	Dismissed
1455	James Bay Ry. Co. v G.T.R. Co. Under crossing at point near Beaverton, Ont. Twp. of Thorsh, Ontario.....	Dismissed
383	Ottawa Electric Ry. Co. and City of Ottawa, Ont. v Canada Atlantic Ry. Co. Bank St. Subway, Ottawa, Ont. Question of law.....	Dismissed
1621	Toronto Ry. Co. re High level Bridge over Don Improvement and tracks of G.T.R. and C.P.R. Co., Toronto, Ont. Question of jurisdiction...	Dismissed
589	Toronto Union Station, A. R. Williams, Expropriation Jurisdiction.....	Dismissed
C. 1680	Essex Terminal Ry. Co. and W.E. & L.S.R. Ry. Co. Crossing Twp. of Sandwich, Ont. Question of Law.....	Dismissed
C. 1309	Robinson v G.T.R. Ry. Co. Two-cent rate. Question of law.....	Dismissed
689	C.P.R. Co. v G.T.R. Co. Branch Line, London, Ontario. Jurisdiction.	Dismissed
1497	T. R. Robinson v C.N.R. Co. Spur at Winnipeg, Manitoba. Jurisdiction.	Dismissed
9627	Montreal St. Ry. Co. re rates, Mount Royal Ward. Jurisdiction.....	Allowed
C. 1419	Ontario Department of Agriculture v G.T.R. Co. re Station at Vineland, Ont. Jurisdiction.....	Dismissed
C. 3322	Toronto Viaduct, C.P.R. Co. Question of law.....	Dismissed
C. 4897	Fencing and cattle-guards Order 7474, Appeal of C.N.R. Co. Jurisdiction	Allowed
C. 4492 C. 3378	City of Toronto, Ont. v G.T.R. Co. and C.P.R. Co. Commutation rates. Question of law.....	Withdrawn
13079	G.T.R. Co. and C.N.C.R. re spur in Scarboro Twp., Ont. Jurisdiction.	Dismissed
C. 3269	G.T.R. Co. v British American Oil Co. re spur Oil rates. Question of law	Dismissed
1319	G.T.R. Co. v City of Fort William, Ont. re location. Jurisdiction.....	Dismissed
13065	N. St. C. and T. Ry. Co. Jurisdiction.....	Dismissed
18580	Clover Bar Coal Co. and W. Humberstone v G.T.R. Co. and the Clover Bar Sand & Gravel Co. Jurisdiction.....	Dismissed
12632	Regina Rates Case. Question of law.....	Dismissed
17963	G.T.P.R. Co. v British American Oil Companies. Jurisdiction.....	Dismissed
C. 3269	G.T.P.R. Co. v A. E. Purcell, Saskatoon, Sask. Jurisdiction.....	Dismissed
15530 15530-1	G.T.P.R. Co. & C.P.R. Co. v Canadian Oil Companies. Jurisdiction..	Dismissed
20062 27095	B.C. Ele. Ry. Co. v V. & E. Ry. Co. v City of Vancouver, B.C. Jurisdiction.....	Dismissed
1487	N. B. Chamber and W. E. C. Phair v C.P.R. Co. Jurisdiction.....	Allowed
18578	C.N.R. Co. v W. A. Taylor. Jurisdiction.....	Dismissed
19435	G.T.R. Co. v City of Edmonton, Alta. Question of law.....	Dismissed
14329-8	Montreal Tramways and M.P. & I. Ry. Co. v Lachine Jacques Cartier & Maisonneuve Ry. Co. Jurisdiction.....	Allowed
23009	City of Hamilton, Ont. v T.H. & B. Ry. Co. Jurisdiction.....	Allowed
21428	G.T.R. Co. v Hepworth Silicon Pressed Brick Co. Question of law....	Dismissed

LIST OF CASES APPEALED TO THE SUPREME COURT FOR CANADA FROM
FEBRUARY 1, 1904 TO DECEMBER 31, 1953—*Continued*

File No.	Subject	Decision
12020-70 9437-153	Toronto Ry. Co. and City of Toronto, Ont. v A.P.R. Co. Law and jurisdiction.....	Dismissed
C. 3935	City of Edmonton, Alta. v E.D. & B.C. Ry. Co. Question of law.....	Dismissed
16171	Ingersoll Tel. Co. et al v B. T. Co. Question of law.....	Dismissed
27524	G.T.R. Co. v Bourassa of Laprairie, Que. Law and jurisdiction.....	Withdrawn
13622	G.N.W. Twlg. Co. re Gen. Order 162. Question of law.....	Abandoned
C. 3269	G.T.R. Co. v British American Oil Co. re spur oil rates. Question of law	Dismissed
1319	G.T.P.R. Co. v City of Fort William, Ont. re location. Jurisdiction...	Dismissed
13065	N. St. C. and T. Ry. Co. Jurisdiction.....	Dismissed
18580	Clover Bar Coal Co. and W. Humberstone v G.T.R. Co. and the Clover Bar Sand & Gravel Co. Jurisdiction.....	Dismissed
12682	Regina Rates Case. Question of law.....	Dismissed
17963	G.T.P.R. Co. v British American Oil Companies. Jurisdiction.....	Dismissed
C. 3269	G.T.P.R. Co. v A. E. Purcell, Saskatoon, Sask. Jurisdiction.....	Dismissed
15530	G.T.P.R. Co. & C.P.R. Co. v Canadian Oil Companies. Jurisdiction..	Dismissed
20062 27095	B.C. Elec. Ry. Co. v V. & E. Ry. Co. v City of Vancouver, B.C. Jurisdiction	Dismissed
1487	N. B. Chamber and W. E. C. Phair v. C.P.R. Co. Jurisdiction.....	Allowed
18578	C.N.R. Co. v W. A. Taylor. Jurisdiction.....	Dismissed
19435	G.T.R. Co. v City of Edmonton, Alta. Question of law.....	Dismissed
14329-8	Montreal Tramways and M.P. & I. Ry. Co. v Lachine Jacques Cartier & Maisonneuve Ry. Co. Jurisdiction.....	Allowed
23009	City of Hamilton, Ont. v T.H. & B. Ry. Co. Jurisdiction.....	Allowed
41428	G.T.R. Co. v Hepworth Silicon Pressed Brick Co. Question of law....	Dismissed
12020-70 9437-153	Toronto Ry. Co. and City of Toronto, Ont. v A.P.R. Co. Law and jurisdiction.....	Dismissed
C. 3935	City of Edmonton, Alta. v E.D. & B.C. Ry. Co. Question of law.....	Dismissed
16171	Ingersoll Tel. Co. et al v B.T. Co. Question of law.....	Dismissed
27524	G.T.R. Co. v Bourassa of Laprairie, Que. Law and jurisdiction.....	Withdrawn
13622	C.N.W. Twlg. Co. re Gen. Order 162. Question of law.....	Abandoned
27840	Government of Man. and J. B. Ashdown Hardware Co. re 15% increase in rates. Jurisdiction.....	Abandoned
26981	C.P.R. Co. v Department of Public Works for Ontario crossing Twp. of Kirkpatrick. Question of law.....	Withdrawn
11118	E. & N. Ry. Co. Victoria Harbour Bridge. Jurisdiction.....	Abandoned
28439	Mn. of Burnaby, B.C. v B.C. Elec. Ry. Co. Communication rates. Jurisdiction.....	Abandoned
28950	City of Toronto v Toronto Terminal Ry. Co., re pipes under Bay, Scott and Yonge Sts., Toronto, Ontario. Question of law.....	Dismissed
C. 3578	Wagenast re Brampton Commutation Rates. Question of law.....	Dismissed
C. 2987	Ottawa Elec. Ry. Co. re rates. Jurisdiction.....	Dismissed

LIST OF CASES APPEALED TO THE SUPREME COURT FOR CANADA FROM
FEBRUARY 1, 1904 TO DECEMBER 31, 1953—Continued

File No.	Subject	Decision
30381	V.V. & E. Ry. Co. v Vancouver Harbour Commissioners and C.N.R. re Order 31647. Jurisdiction.....	Dismissed
28140	C.P.R. Co. Overhead crossing, lots 6 and 7, Con. 1, Eston Twp., Ontario	Allowed
31531-1	Luscar Collieries Ltd. v N. S. McDonald and C.N.R. Jurisdiction....	Allowed
32812-1	Governments of Alberta, Saskatchewan and Manitoba re Crows Nest Pass Rates.....	Allowed
34285	C.N.R. Co. re through rates via St. John and Ste. Rosalie, Gateways, Appeal allowed re movements through St. John and dismissed in respect of movements through Ste. Rosalie.....	Allowed (partly)
24822	Toronto Transportation Commission, re bridge over C.N.R. tracks at Main St., Toronto, Ontario.....	Dismissed
4000-3	Montreal Trams. Co. against Order 42501, as amended by Order 42773. Jurisdiction.....	Dismissed
16645-73	C.N.R. re opening for traffic portion of its lines Willington to Strathcona, Alta. Law and jurisdiction.....	Dismissed
6713-213	B.C.E. Ry. Co. from Order 42808. Jurisdiction.....	Dismissed
9437-7	M.L.H. & P. Consolidated, B.T. Co. Montreal Trams. Co. and Montreal Trams. Comm. re subway at D'Argenson St., Montreal, Que. Question of law.....	Dismissed
9437-319-13	M.L.H. & P. Consolidated, B.T. Co. Montreal Trams. Co. and Montreal Trams. Comm. re St. Antoine St. Subway, Montreal, Que. Question of law.....	Dismissed
9437-319-16	M.L.H. & P. Consolidated, B.T. Co. and City of Montreal, re proposed line between Longue Pointe and Eastern Junction, Que. C.N.R. Question of law and jurisdiction.....	Dismissed
32453-11	B.T.C. re St. Clair Ave. Subway, Toronto, Ont. Law and jurisdiction.	Dismissed
20161	B.T.C. re grade separation, Hamilton, Ont. Law and jurisdiction.....	Dismissed
C. 4704	C.E.A. and Ont. H. Elec. Comm. re rules for wires along and across Highways. Law and jurisdiction.....	Dismissed
34123-74	Govt. of Alberta re tariffs on grain and flour to Fort William, Westport and Armstrong and to Vancouver. Question of law.....	Dismissed
27929-40	P.M.R. and Lake Erie & Detroit River Ry. Co. from Order 45736. Jurisdiction.....	Allowed
37756	City of Toronto, Ont. re Eglinton Ave. Bridge in Village of Forest Hill, Ont. Jurisdiction.....	Allowed
26782-21	Quebec Ry. L. & P. Co. re Charlesbourg Road Subway. Law and jurisdiction.....	Dismissed
35594	City of Windsor, Ont. re Bridge over C.N.R. on Sandwich St., Walkerville, Ont. Jurisdiction.....	Dismissed
38702	C.P.R. Co. v C.N.R. against Order 50139 re agreement dated Jan. 29, 1929. Question of law.....	Dismissed
38856	Elizabeth Breg and Penn Coals Ltd. re compensation in respect of coal mines and minerals in and under right of way of N.A.R. Co.....	Dismissed
17716	City of Montreal, P.Q. re removal by C.P.R. Co. of structures and works erected at certain streets of Montreal along proposed branch line through Prefontaine, Maisonneuve and Mercier never completed. Question of law.....	Dismissed
588-59	City of Toronto, Ont. re subway structures at Carlaw and Gerrard Sts. Jurisdiction.....	Dismissed

TRANSPORT COMMISSIONERS FOR CANADA

LIST OF CASES APPEALED TO THE SUPREME COURT FOR CANADA FROM
FEBRUARY 1, 1904 TO DECEMBER 31, 1953—*Concluded*

File No.	Subject	Decision
34822-40	Provinces of N.S. and N.B. and P.E.I., the Transp. Comm. of the Maritime B. of T. The Halifax B. of T., the St. John B. of T., the Perth Co. B. of T., the Victoria Co. B. of T., Association Ship. of N.B., the P.E.I. Potato Growers' Assoc., Porter Bros. Ltd., and Austin Scales, re rates on potatoes. Law and jurisdiction.....	Dismissed
9437-319-46	C.N.R. v M.L.H. & P. Consolidated and the B.T.C. re Montreal Terminals. Question of law.....	Dismissed
37615	B.T. Co. and C.N.R. v Corp. of the Town of N. Toronto and the Corp. of Twp. of Etobicoke, Ont. re subway at 18th St., N. Toronto. Law and jurisdiction.....	Dismissed
26765-152	The Consumers Gas Co. of Toronto and B.T. Co. v C.N.R. City of Toronto and Twp. of Scarborough, Ont., re Victoria Park Ave. Subway. Law and jurisdiction.....	Dismissed
30513	Normental Ry. Co. and Normental Mining Corp. Ltd. Order 58001. Law and jurisdiction.....	Dismissed
36156-2	Q.R.L. & P. Co. re Order of the Board dismissing the application of the Q.R.L. & P. Co. in the matter of tariff of tolls for the carriage of passengers on the motor buses operating by the Co., between the Village of St. Jean de Boischatel and the City of Quebec.....	Dismissed
6949-2	C.E.R. Co. from Order 64408, re reduction of fares.....	Dismissed
44168	Brompton Pulp and Paper Co. Ltd. and C.N.R. (C.N.R. Co.), and C.N.O.R. Co., from Order of the Board No. 66708, dated 2nd day of November 1945. Question of law.....	Abandoned
44484	Application of the Bell Telephone Company of Canada for authority to construct and maintain its lines (buried cables) across and under certain public highways in the County of Middlesex, Ontario. B.T.C. v County of Middlesex, question of law and jurisdiction.....	Allowed
45582	From judgment in re application of the Railway Association of Canada for authority to make a General increase of 20 per cent in its freight rates	Allowed
26782-313	From Order of the Board No. 70832, dated the 26th day of June, 1948, authorizing construction of a viaduct over the line of the Canadian National Railways at Rimouski, P.Q. and apportioning the cost of construction and maintenance of the said viaduct.....	Allowed
45464-1	Canada Steamship Lines Limited, from Order of the Board No. 78767, dated April 16, 1952, directing the Canadian National Railways and the Canadian Pacific Railway Company to make a reduction in freight rates in accordance with Board's Circular No. 272, dated April 16, 1952, which was issued in implementation of sub-section 5 of section 18, chapter 22, 15-16 Geo. VI.....	Pending

SUMMARY

DISMISSED.....	70
ALLOWED.....	18
ABANDONED.....	6
WITHDRAWN.....	4
PENDING.....	1
TOTAL.....	99

LIST OF APPEALS TO THE GOVERNOR-IN-COUNCIL
FEBRUARY 1, 1904, TO DECEMBER 31, 1953

File No.	Subject	Decision
389	Bay of Quinte Ry. Crossing. C.P.R. Tweed, Ont.....	Allowed
1455	James Bay Ry. Co. v. G.T.R. Co. Crossing near Beaverton, Ont.....	Dismissed
1781	G.T.R. Co. v. City of Chatham, Ont. Street Crossing.....	Dismissed
12992	Maniwaki Br., C.P.R. Train Service from Ottawa, Ont.....	Ref. Back
2030	Tariffs of certain Yukon Railways.....	Dismissed
17716	C.P.R. Co. Longue Pointe Spur. Maisonneuve, Que.....	Dismissed
18787	South Hazelton Tonsite v. G.T.R. Co.....	Ref. Back
3452-30	J. T. Rochester v. G.T.R.P. Co. re Cameron Bay.....	Dismissed
12912	Park Ave. Subway, Saint Louis, P.Q.....	Dismissed
17740	Lambton to Weston Spur and C.P.R. Co.....	Abandoned
C. 3322	Toronto Viaduct.....	Dismissed
16177	C.P.R. Co. v. Mountain Lumber Manufacturers' Assn. re Lumber rates.	Withdrawn
19024	C. Miller of Toronto v. G.T.P.R. Co. re Station at Prince George, B.C.	Dismissed
17716-10	C.P.R. Co. v. Town of Maisonneuve, P.Q. Highway crossing.....	Dismissed
22681-25	City of Montreal, Que. v. C.N.R. Co. Siding across Stadacona and Marlboro Sts., Montreal, Que.....	Abandoned
21418	City of Prince George, B.C. re location of G.T.P.R. Co. Station between Oak and Ash Sts.....	Dismissed
26169	G.T.P.R. & C.N.R. Cos. re Interswitching at Eastern Public Cattle Market, Montreal, Que.....	Abandoned
21660	C.N.O.R. Co. v. Twp. of Loughboro, Ont.....	Dismissed
17040	C.P.R. Co. re Lambton to Weston Spur, 2nd Appeal.....	Ref. Back
27693	City of Hamilton, Ont. v. G.T.M. Co. re passenger service on N. & N. "Beh". between Hamilton and Burlington Beach and Town of Burlington, Ont.....	Abandoned
27840	Winnipeg B. of T. re 15% increase in Freight Rates.....	Dismissed
28493-3	Town of St. Lambert, P.Q. re increase in rates on M. & S.C. Ry.....	Dismissed
28230	City of Hamilton, Ont. re Kinnear Yard.....	Ref. back
12021-70	North Toronto Grade Separation.....	Dismissed
29040-2	National Dairy Council of Canada on behalf of Ice Cream Manufacturers, re classification of Ice Cream.....	Ref. back
C. 955	Proprietors' League of Montreal, P.Q. re increase in B.T. Co.'s rates....	Dismissed
30424	City of Windsor, Ont. against Order 30028, re C.P.R. Freight shed across Caron Ave., Windsor, Ont.....	Dismissed
29996	City of Toronto, Ont. re General increase in Freight Rates.....	Ref. back
C. 955	City of Toronto, Ont. re Increase in rates of the B.T. Co.....	Ref. back
23092-2	C.N.R. re crossing Pointe aux Trembles Ry. at Pointe aux Trembles, P.Q.....	Ref. back
30380-13	National Dairy Council of Canada, re 20% increase in Cream rates....	Ref. back
30380	City of Toronto, Ont. re Express rates.....	Dismissed
17112-27	Dominion Miller's Ass'n of Canada re flour arbitraries over wheat for export.....	Dismissed

TRANSPORT COMMISSIONERS FOR CANADA

LIST OF APPEALS TO THE GOVERNOR-IN-COUNCIL
FEBRUARY 1, 1904, TO DECEMBER 31, 1953—Continued

File No.	Subject	Decision
29040-2	National Dairy Council of Canada re Express Classification of Ice Cream	Dismissed
30686-2	Province of Alberta and British Columbia re railway Tolls.....	Ref. back
30380-13	National Dairy Council of Canada, re 20% increase cream rates.....	Allowed
3023-16	N. St. C. & T. Ry. Co. re location of its line on Oak and Merritt Sts., Merritton, Ont.....	Withdrawn
C. 955-71	The Govt. and Attorney General of Ontario, the Cities of Montreal, Toronto, Hamilton, Ottawa and Brantford and the Union of Can. Mun. from Order 38777, re Telephone rates.....	Dismissed
32812-1	Govts. of Alberta, Sask. and Man. re Crows Nest Pass rates.....	Allowed
9754-22	Can. Shippers' Traffic Bureau, re claim against G.T.R. Co. in matter of freight overcharge.....	Dismissed
30686-2	Govts. of Alta., Sask. re rates on grain and flour to the Pacific Coast for export.....	Ref. back
34123	United Farmers of B.C. Fraser Valley Dist. Council, re freight rates on grain and grain products over C.P.R. and C.N.R.....	Dismissed
429-3	Consumers Glass Co. Ltd., Montreal, P.Q. re freight rates on glass bottles and jars.....	Dismissed
38316	Lakeside Milling Co. Ltd., Toronto, Ont. on behalf of itself and all other inland millers in Ont. re tariffs on grain and grain products.....	Abandoned
388001	Employees of M.C.R. Ry. Co. (N.Y.C. R.R. Co.) at Montrose, Ont., and others re alleged abandonment of the Montrose Yards.....	Dismissed
38625	Parish of N.D. du Bon Conseil, P.Q. v. C.N.R. re crossing of Mitchell Station; Matter referred to the Dept. of Railways and Canals on May 10, 1934.....	Pending
39310-9	Town of Nicolet, P.Q. and His Worship Mayor H. N. Biron of Nicolet, re abandonment of operation of that portion of the Nicolet Subd. of the C.N.R. between St. Leonard Jct. and Nicolet, P.Q.: Matter referred to the Dept. of Railways and Canals on October 13, 1936.....	Pending
24271-1	Prov. of B.C., the Fraser Valley Surrey Farms' Co-Operative Ass'n. and the Dist. "B" Farmers Institute of B.C. re reduction in freight rates on feed grain of mills feed.....	Dismissed
39309-5	Prov. of N.B. re abandonment of portion of N.B.S. Ry. (C.P.R. Co.) known as Shore Line Subd. between Shore Line Jct. and Bonny River	Dismissed
26901-62-3	Chishold Saw Mills Ltd. and the Edmonton Box and Shook Co., Ed- monton, Alta. re rates on Lumber and Forest products from North Central Points in Alta. to Toronto, Ont.....	Dismissed
39310-25	Prov. of N.S., the M. of the Co. of Annapolis, the Town of Middleton, N.S., the Town of Bridgeton, N. S. M. W. Graves & Son, Ltd., Bridge- ton, N.S., J. R. Ricks & Sons and the United Fruit Cos. of N.S. Ltd., against order of the Board in the matter of Joint application of the C.N.R. and C.P.R. Co. for Abandonment of operation of the line of the C.N.R. between Middleton Jct. and Granville Centre, N.S.: Matter referred to the Dept. of Transport, May 27, 1939.....	Pending
39310-38	Town of Renfrew, Ont. from Order 58759, approving the abandonment of a portion of the C.N.R. Renfrew Subd. between Arnprior and Egan- ville.....	Ref. back
28420	Mun. between Montreal and Valleyfield and other interests concerned, that Order No. 62062, be rescinded or the suspension of the execution of such order until Sept. 1, 1942, in the matter of application of the N.Y.C.R.R. for permission to discontinue trains Nos. 24, 25, 30, 31, 32 and 26 running between Malone and Valleyfield and Montreal.....	Ref. back

LIST OF APPEALS TO THE GOVERNOR-IN-COUNCIL
FEBRUARY 1, 1904, TO DECEMBER 31, 1953—*Concluded*

File No.	Subject	Decision
44482	An appeal from the judgment and Order of the Board No. 70425, dated March 30, 1948, in the matter of the application of the Railway Ass'n. of Canada, dated October 8, 1946, for an Order of the Board authorizing a general increase of 30% in the freight rates.....	Ref. back
45582-4	From judgments and orders of the Board Nos. 74034 and 74512, dated respectively, which judgments and Orders together granted an increase of twenty percent in freight rates and certain increases in the rates on coal and coke.....	Dismissed
46920-2	The Maritime provinces and the Provinces of Manitoba, Saskatchewan, Alberta and British Columbia from the Judgment and Order of the Board dated March 6, 1953, which authorized a general increase of 7% in freight rates.....	Dismissed
26825-144	The Ontario Department of Highways from Order of the Board No. 81573, dated June 15, 1953, which authorized the Canadian National Railways to construct an industrial spur across certain highways near Picton, Ontario.....	Dismissed

SUMMARY

DISMISSED.....	30
ALLOWED.....	3
REFERRED BACK.....	14
WITHDRAWN.....	2
ABANDONED.....	5
PENDING.....	3
TOTAL.....	57

LIST OF REFERENCES BY THE BOARD FOR THE OPINION OF THE SUPREME
COURT OF CANADA

FEBRUARY 1, 1904 TO DECEMBER 31, 1952

- C.P.R. and James Bay Ry. Co. (Location of branch line). BTC File No. 590. 36 S.C.R. 42.
 City of Toronto v. G.T.R. and C.P.R. Cos. (Brampton Commutation Rate Case No. 2). 11 C.R.C. 365. B.T.C. File No. 00000.
 British Columbia Electric Ry. Co.'s application for increased rates. No judgment delivered.
 C.P.R. v. G.T.R. (Myrtle Bridge Case). As to obligations under an agreement. B.T.C. File No. 23009. 17 C.R.C. 300.
 City of Hamilton v. T.H. & B.H. (Hunter St. Case) as to power of Board to direct a railway company to divert its line. B.T.C. File 23009. 17 C.R.C. 370.
 City of Edmonton v. Calgary & Edmonton Ry. (As to seniority at highway crossings). B.T.C. Files No. 22415 and 22436. 22 C.R.C. 182.
 Western Canada Flour Mills Ltd. *et al* v. C.P.R. and C.N.R. (re Vancouver wharfage charges). B.T.C. files No. 33564-1 and 33564-5. 38 C.R.C. 124.
 Re Railway Grade Crossing Fund (Contributions therefrom in the case of highway diversions). B.T.C. File No. 26807-85-1. 40 C.R.C. 110.
 Re Maritime Freight Rates Act. Interpretation as to powers of Board thereunder. B.T.C. File 34822. 41 C.R.C. 46.
 St. Eugene de Guigues v. C.P.R. (Re Angliers Railway Crossing). B.T.C. File No. 38839. 46 C.R.C. 401.
 Re The Transport Act 1938 (in particular the provisions of S. 35 in regard to Agreed Charges). B.T.C. File No. 43453. 55 C.R.T.C. 162.

APPENDIX "A"

LIST OF MEMBERS OF THE BOARD WHO HAVE SERVED OR ARE SERVING
ON THE BOARD

Member's Name	Office	Appointment	Termination
Hon. A. G. Blair, K.C.....	Chief.....	1st Feb. 1904....	31st Oct. 1904 (resigned)
Hon. M. E. Bernier.....	Deputy....	1st Feb. 1904....	31st Jan. 1914 (served term)
James Mills.....	Commr....	1st Feb. 1904....	31st Jan. 1914 (served term)
Hon. A. C. Killam, K.C.....	Chief.....	6th Feb. 1905....	1st March 1908 (died)
Hon. J. P. Mabey, K.C.....	Chief.....	28th March 1908..	6th May 1912 (died)
D'Arcy Scott.....	Ass't.....	17th Sept. 1908...	16th Sept. 1918 (served term)
S. J. McLean.....	Commr....	17th Sept. 1908...	16th Sept. 1918 (reappointed)
Hon. Thos. Greenway.....	Commr....	17th Sept. 1908...	30th Oct. 1908 (died)
A. S. Goodeve.....	Commr....	4th April 1912....	22nd Nov. 1920 (died)
Henry L. Drayton, K.C.....	Chief.....	1st July 1912....	1st Aug. 1919 (resigned)
Hon. W. B. Nantel, K.C.....	Deputy....	20th Oct. 1914....	19th Oct. 1924 (served term)
A. C. Boyce, K.C.....	Commr....	4th Oct. 1917....	3rd Oct. 1927 (served term)
Dr. J. G. Rutherford, C.M.G.....	Commr....	17th Sept. 1918...	24th July 1923 (died)
Hon. F. B. Carvell, K.C.....	Chief.....	2nd Aug. 1919....	9th Aug. 1924 (died)
S. J. McLean, LL.B.....	Commr....	16th Sept. 1918..	15th Sept. 1928 (reappointed)
	Ass't.....	6th Aug. 1919....	
Calvin Lawrence.....	Commr....	4th Nov. 1921....	4th May 1931 (died)
Hon. Frank Oliver.....	Commr....	21st Sept. 1923....	20th Sept. 1928 (reached age of 75)
Hon. H. A. McKeown, K.C.....	Chief.....	16th Sept. 1924...	28th Feb. 1931 (resigned)
Thomas Vien, K.C.....	Deputy....	5th Sept. 1925....	31st Jan. 1931 (resigned)
Hon. T. C. Norris.....	Commr....	30th March 1928..	29th March 1938 (served term)
S. J. McLean, LL.B.....	Ass't.....	17th Sept. 1928...	16th Sept. 1938 (served term)
John A. Stoneman.....	Commr....	12th March 1929..	11th March 1939 (reappointed)
Hon. C. P. Fullerton, K.C.....	Chief.....	13th Aug. 1931....	31st Dec. 1933 (resigned)
F. A. Labelle.....	Deputy....	16th Dec. 1931....	15th July 1933 (died)
G. A. Stone.....	Commr....	16th Dec. 1931....	15th Dec. 1941 (reappointed)
F. Nap. Garceau, K.C.....	Deputy....	16th Sept. 1933...	10th April 1943 (reached age of 75)
Hon. Hugh Guthrie, K.C.....	Chief.....	12th Aug. 1935....	3rd Nov. 1939 (died)
Hugh Wardrope.....	Ass't.....	8th Nov. 1938....	8th Nov. 1948 (reappointed)
John A. Stoneman.....	Commr....	11th March 1939..	10th March 1949
F. M. MacPherson.....	Commr....	21st Sept. 1939....	20th Sept. 1949 (reappointed)
J. A. Cross, Col., D.S.O., K.C.....	Chief.....	1st April 1940....	30th June 1948 (resigned)
G. A. Stone.....	Commr....	15th Dec. 1941....	1st July 1947 (reached age of 75)
			Reappointed—1st July 1947, to 30th June 1948
Armand Sylvestre, K.C., LL.B.....	Deputy....	18th April 1945....	17th April 1955
Hon. Mr. Justice M. B. Archibald....	Chief.....	1st July 1948....	Resigned
H. B. Chase, C.B.E.....	Commr....	28th July 1948....	27th July 1958
Hugh Wardrope.....	Ass't.....	8th Nov. 1948....	7th Nov. 1958
W. J. Patterson.....	Commr....	1st April 1949....	3rd July 1951 (resigned 1st Nov. 1950)
Hon. Mr. Justice J. D. Kearney.....	Chief.....	1st Nov. 1951....	30th Oct. 1961
O. A. Matthews.....	Commr....	1st Jan. 1953....	31st Dec. 1962

APPENDIX "B"

(1) Since the establishment of the Board, its jurisdiction has been extended to the following matters:—

- (a) Bridges—Chap. 20 R.S.C. 1952.
- (b) Express Tolls—Chap. 234, R.S.C. 1952.
- (c) Abandonment of Operation of Railway Lines—Chap. 234, R.S.C. 1952.
- (d) Telephone Companies—Chap. 234, R.S.C. 1952.
- (e) Telegraph Companies—Chap. 234, R.S.C. 1952.
- (f) International Bridges and Tunnels—Chap. 234, R.S.C. 1952.
- (g) The Railway Grade Crossing Fund—Chap. 234, R.S.C. 1952.
- (h) The C.N.R.-C.P.R. Act—Chap. 39, R.S.C. 1952.
- (i) Licensing and Rate Regulation of Ships—Transport Act, Chap. 271, R.S.C. 1952.
- (j) Agreed Charges—Transport Act, Chap. 271, R.S.C. 1952.
- (k) Control of Interprovincial and International Oil and Gas Pipe Lines—Chap. 211, R.S.C. 1952 and 1953 amendment.
- (l) Maritimes Freight Rates Act—Chap. 174, R.S.C. 1952.
- (m) Radio—Radio Act, Chap. 233, R.S.C. 1952.

APPENDIX "C"

REPORT OF THE TRAFFIC DEPARTMENT FOR THE YEAR
ENDED DECEMBER 31, 1953

Submitted herewith is the report of the Traffic Department of the Board for the calendar year 1953, setting out the number of Tariff schedules and ancillary tariff documents received for filing; also a brief summary of other work performed:

TARIFFS AND SUPPLEMENTS FILED

<i>Rail—</i>	
Freight.....	27,745
Agreed Charges.....	38
Passenger.....	1,322
Sleeping and Parlour Car.....	30
<i>Water—</i>	
Freight.....	166
Passenger.....	9
Express.....	820
Telephone.....	2,060
Telegraph.....	209
International Bridges.....	2
Total tariff schedules.....	32,401

OTHER TARIFF DOCUMENTS FILED

Concurrences.....	192
Revocation Notices.....	10
Powers of Attorney.....	1,162
Revocation Notices.....	77
Total tariff documents.....	1,437
Total.....	33,838

MARITIME FREIGHT RATES ACT

For the period July 1, 1952 to June 30, 1953 inclusive, the detail of the work performed was:

Rates checked.....	1,076,784
Extensions checked.....	538,392
Additions checked.....	10,290
Corrections issued.....	11,441
Orders issued.....	138

Reimbursement claimed.....	\$ 1,566,269.51
Reimbursement allowed.....	1,519,080.74
Net deduction.....	47,188.77

ORDERS ISSUED

During the year, in addition to Orders issued pursuant to the Maritime Freight Rates Act as mentioned above, the following Orders were issued:

Traffic	Water Licences	Agreed Charges	Telephone Telegraph	Bridges Tunnels	Total
27	21	33	110	1	192

AGREED CHARGES

During the year Agreed Charge matters were:

New Agreements	Amendments to former Agreements	Fixed Charges	In effect December 31, 1953	
7	20	11	Agreements	Shippers
			31	105

WATER TRANSPORTATION LICENCES

Licences, under Part 2 of the Transport Act, 1938, were granted as follows:

Licences	Ships	Area
10	73	Great Lakes
6	139	Mackenzie River
1	3	Yukon River

GENERAL

Applications or formal complaints to the Board, dealt with by this department, totalled 314. A total of 3,574 communications emanated from this department during the year relating to its administrative functions in the handling of complaints; interpretation of tariffs or classification and the filing of same; furnishing rate information; also, concerning powers of attorney, concurrences, free or reduced transportation; administration of the Maritime Freight Rates Act and the granting of water licences under The Transport Act, 1938.

A. S. KIRK,
Director.

Ottawa, February 2, 1954.

APPENDIX "D"

THE SECRETARY,
BOARD OF TRANSPORT COMMISSIONERS FOR CANADA,
OTTAWA, CANADA.

DEAR SIR,—

I submit herewith my Annual Report and information regarding the work of the Engineering Branch of the Board during the past year, and attach herewith details and summarized statement of works of the Engineering Department during the year 1953.

Yours very truly,
KELLS HALL,
Director of Engineering.

RAILWAY GRADE CROSSING FUND, AND SPECIAL VOTES

In accordance with the provisions of sub-section (5) of Section 265 of the Railway Act, 1909, provision was made that the sum of \$200,000 each year, for ten consecutive years from the first day of April 1909, be appropriated and set apart from the consolidated revenue fund for the purpose of aiding actual construction work for the protection, safety, and convenience of the public in respect of highway crossings of railways at rail level, in existence on the first day of April, 1909, the said sums to be placed to the credit of a special account to be known as "The Railway Grade Crossing Fund", to be applied by the Board, subject to certain limitations set out in the act, and amending Acts, solely towards the cost (not including that of maintenance and operation), of actual construction work for the purpose specified. In 1919, the same sum was voted for another ten years and again in 1929.

In 1947 the sum of \$200,000 a year was voted for a period of ten years, and increased to \$500,000 a year for 1948, 1949 and 1950. This sum was further increased to one million dollars for six consecutive years from the 1st day of April, 1951.

An amount of \$500,000 was transferred to the Railway Grade Crossing Fund from the Unemployment Relief Fund, 1930, and \$500,000 from the Unemployment and Farm Relief Fund, 1931-1932; \$500,000 by special vote of Parliament in 1934. In 1938, \$300,000 was placed in the Railway Grade Crossing Fund in addition to the usual \$200,000 and \$500,000 was placed in the Railway Grade Crossing Fund by special vote in 1939; \$1,000,000 by the Public Works Construction Act, 1935; \$1,000,000 by Vote 420, Special Supplementary Estimates 1936-37; Vote 357, Special Supplementary Estimates, 1937-38, \$1,064,000; Vote 630, Supplementary Estimates 1938-39 provided \$1,000,000; and Vote 585, Supplementary Estimates 1939-40 provided \$1,000,000, making the total provided to the end of the year 1953 of \$18,664,000. Out of these funds the sum of \$14,135,839.57 has already been paid.

The funds voted to the Railway Grade Crossing Fund are accumulative, whereas the money provided by the Special Votes had to be committed to projects by the end of the current fiscal year, when the vote elapsed, and funds not already committed were no longer available.

Expenditures from the Railway Grade Crossing Fund were low during the War years, due to labor and material being directed to War purposes, and recommendations were only made for protection at highway crossings when absolutely necessary at the time.

In 1928, the Railway Act was amended by Chapter 43, 18-19 George V, and provision was made that in the case of any one crossing the total amount of money to be applied by the Board out of the Railway Grade Crossing Fund, in providing protection, safety and convenience for the public, shall not exceed forty per cent of the cost of the actual construction work, and in no case shall

the contribution exceed \$100,000. This was amended by Chapter 20, 14 George VI, dated June, 1950, so that the total amount to be applied for any one crossing was increased to \$150,000. Under the terms of the Public Works Construction Act, 1935, Vote 420, of the Special Supplementary Estimates 1936-1937; Vote 357 of the Special Supplementary Estimates 1937-1938; Vote 630 Supplementary Estimates 1938-39; and Vote 585 Supplementary Estimates, 1939-40; grants could be made up to 100 per cent of the cost of construction out of the funds provided under those Acts.

It will be noted that the Board is restricted to a contribution from the Railway Grade Crossing Fund of 40 per cent of the cost of construction of any project, and is not authorized to contribute to the cost of the maintenance. The remaining sixty per cent of the cost of construction and the entire cost of maintenance must be divided between the other interested parties, that is, generally the Railway and the Municipal authority. The maintenance costs of automatic protection, if capitalized in most cases, is equal to or greater than the original cost of construction.

Grade separations were completed during the year at the following points, and contributions were made towards the cost of construction out of the Railway Grade Crossing Fund:

Grade Separations	Contributions from Railway Grade Crossing Fund
C.N.R. and C.P.R., one subway and two pedestrian subways, Valois, Montee des Sources Road and Coolbreeze Avenue, in the Town of Pointe Claire, P.Q.	\$ 106,800.00
Overhead bridge, C.P.R., Highway No. 27 at Mileage 10-87, Galt Sub., Ont.	102,000.00
Overhead bridge, C.P.R., Lot 2, Con. B, Henvey Twp., Parry Sound District, Mileage 65-55, Parry Sound, Ont.	48,000.00
Subway, C.N.R., Mileage 19-2, Rimouski Sub., in the Town of Rimouski, Que.—Additional amount granted	43,465.00
Subway, C.N.R., East end Mountain Access Project in the City of Hamilton, Ont., Mileage 3-37, Hagersville Sub.	150,000.00
Overhead bridge, C.N.R., Highway No. 11 in the Twp. of Orillia, County of Simcoe, Mile 89-12, Bala Sub., Ont.	124,000.00
Subway, T.H. & B., Kenilworth Ave. South, in the City of Hamilton, Ont.	150,000.00
Subway, C.N.R., St. David St. in the Town of Jonquiere, Que.	74,000.00
Subway, C.P.R., 14th Street, Calgary, Alta.	150,000.00
Overhead bridge, C.N.R., Highway No. 11 in Lot 3, Con. 6, Twp. of Orillia, County of Simcoe, Ont.	84,160.00

The following grade separations were approved during the year and contributions towards the cost could not be made from the Railway Grade Crossing Fund, under the terms of Section 265 of the Railway Act.

- Overhead bridge, C.P.R., Lots 20 and 21, Con. 2, Twp. of West Oxford, County of Oxford, Mileage 2-08, Port Burwell Subdivision, Ontario.
- Reconstruct overhead bridge, C.N.R. (Barlow Bridge), Mileage 60-66, Rimouski Sub., Quebec.
- Construct overhead bridge, C.P.R., Mileage 97-78, Oshawa Sub., Lot 30, Con. 2, Twp. of Scarboro, York County, Ontario.
- Construct overhead bridge, C.P.R., Lots Nos. 3 and 4, Con. 1, Twp. of North Dorchester, County of Middlesex, at Mileage 14-7, St. Thomas Subdivision, Ontario.
- Construct overhead bridge, C.N.R., Lots Nos. 10 and 11, Con. 1, Twp. of East Oxford, County of Oxford, at Mileage 46-04, Dundas Subdivision, Ontario.
- Construct overhead bridge, C.N.R., Lot 20, Con. 1, Twp. of Perry, District of Parry Sound, Mileage 43-8, Huntsville Subdivision, Ontario.
- Reconstruct bridge, C.P.R., in the Town of Mattawa, Mileage 0-5, Timiskaming Subdivision, Ontario.
- Construct overhead bridge, C.P.R., at Mileage 26-1, Thompson Subdivision, B.C.
- Reconstruct bridge, T.H. & B. Railway, Aberdeen Ave., in the City of Hamilton, Mileage 39-27, Waterford Subdivision, Ontario.
- Reconstruct overhead bridge, Acadia Coal Co. Ltd., and C.N.R., at Mileage 4-95, Thornburn Sub., N.S.
- Construct overhead bridge, C.P.R., at Mileage 26-68, Mountain Subdivision, B.C.
- Construct overhead bridge, C.P.R., at Mileage 35-62, Nelson Subdivision, B.C.
- Construct overhead bridge, C.P.R., in Lot 1, Con. 1, Township of Snider, District of Sudbury, Mileage 4-9, Webbwood Subdivision, Ontario.
- Construct overhead bridge, C.P.R., in Lot 5, Con. 4, Township of Nairn, at Mileage 35-0, Webbwood Subdivision, Ontario.
- Construct overhead bridge, C.P.R., across road allowance on the eastern boundary of Sec. 36, Twp. 19, Rge. 19, W3M, at Mileage 37-37, Empress Sub., Sask.

TRANSPORT COMMISSIONERS FOR CANADA

The following statements show the distribution of funds provided for the protection of highways crossing railways from 1909, when the first grant was made, to December 31, 1953.

STATEMENT SHOWING TOTAL AMOUNT PAID FOR WORK DONE IN THE DIFFERENT PROVINCES, OUT OF THE RAILWAY GRADE CROSSING FUND AND SPECIAL VOTES—PERCENTAGE OF TOTAL EXPENDITURE IN EACH PROVINCE, AND PERCENTAGE OF POPULATION OF CANADA IN EACH PROVINCE, FROM 1909 TO DECEMBER 31, 1953

Province	Total Expenditure from the different Votes	Percentage of Total amount of Expenditure	Population of Province	Percentage of Popula- tion of Canada
	\$ cts.			
British Columbia.....	991,650 92	7.02	1,165,000	8.83
Alberta.....	619,856 00	4.38	939,000	6.72
Saskatchewan.....	703,115 15	4.97	831,000	5.94
Manitoba.....	433,120 93	3.06	776,000	5.56
Ontario.....	6,995,008 27	49.48	4,597,000	32.89
Quebec.....	3,014,256 73	21.32	4,055,000	29.01
New Brunswick.....	499,316 82	3.54	515,000	3.68
Nova Scotia.....	854,763 34	6.05	642,000	4.59
Prince Edward Island.....	24,751 41	.18	98,000	.70
Newfoundland.....			361,000	2.58
	14,135,839 57	100.00	13,979,000	100.00

ENGINEERING DEPARTMENT
January 21, 1954.

EXPENDITURES FOR PROTECTION AT HIGHWAY CROSSINGS
1909 TO DECEMBER 31, 1953

Province	Railway Grade Crossing Fund	Per- centage of Total	Provinces and Municipality	Per- centage of Total	Railway	Per- centage of Total	Total
	\$ cts.		\$ cts.		\$ cts.		\$ cts.
British Columbia..	991,650 92	39.39	970,870 81	38.57	554,765 33	22.04	2,517,287 06
Alberta.....	619,856 00	25.81	1,329,078 27	55.35	452,318 93	18.84	2,401,253 20
Saskatchewan.....	703,115 15	36.50	859,101 86	44.59	364,303 63	18.91	1,926,520 64
Manitoba.....	433,120 93	41.76	248,724 68	23.98	355,360 88	34.26	1,037,206 49
Ontario.....	6,995,008 27	21.53	10,982,156 28	33.80	14,518,900 20	44.67	32,496,064 75
Quebec.....	3,014,256 73	38.94	3,579,905 09	46.25	1,146,418 49	14.81	7,740,580 31
New Brunswick...	499,316 82	30.64	586,440 66	35.99	543,773 21	33.37	1,629,530 69
Nova Scotia.....	854,763 34	44.06	727,061 54	37.48	358,126 40	18.46	1,939,951 28
P. E. Island.....	24,751 41	57.75	14,316 07	33.40	3,794 03	8.85	42,861 51
Newfoundland.....							
	14,135,839 57	27.33	19,297,655 26	37.30	18,297,761 10	35.37	51,731,255 93

The above figures include payments from the Railway Grade Crossing Fund and all other Votes for highway crossing protection.

ENGINEERING DEPARTMENT
January 21, 1954

PROTECTION AT HIGHWAY CROSSINGS BY WIG-WAGS AND BELLS, FLASHING LIGHT SIGNALS AND BELLS, AND ELECTRIC GATES

During the year there were 97 installations of automatic protection at railway crossings, in addition to some 46 cases of circuit improvement in connection with existing protective devices.

Applications for automatic protection at railway highway level crossings are made by Municipal and Provincial Highway Authorities, sometimes by the Railways. Other cases are brought to the Board's attention by the officers of the Board. All applications do not result in installation of the protection applied for, but in the majority of cases all applications entail an inspection by an Engineer of the Board and his report for the Board's decision.

In the case of all installations the Board's Engineers made inspections and conducted a thorough test to ascertain if the installation had been made in accordance with the approved practice and plans, and if the protection was working in a satisfactory manner. An audit of all costs of protection installed was made by an Engineer of the Board. This involved the checking of all items of labour, material, as well as the original invoices. Recommendation was then made in connection with payment from the Railway Grade Crossing Fund, or special fund.

There were many inspections made during the year in connection with applications for highway crossing protection which did not result in installation, since as a result of the inspection it was found that conditions did not warrant the protection applied for.

HIGHWAY CROSSINGS OPENED, CLOSED, AND HIGHWAY DIVERSIONS

There were 185 new highway crossings opened during the year, and 26 closed, together with 8 highway diversions. The highway crossings opened involved cases where the railway companies wished to extend their tracks across the existing public ways, and where Municipal and Highway Authorities desired to cross existing tracks by new, or diverted highways.

Plans and profiles of the proposed crossings were carefully examined by Engineers of the Board, in order to endeavour to eliminate any objectionable features, such as obstruction to view, grades of approach, etc., and to bring about the safest possible travel conditions. A great many of the cases applied for required an examination on the ground, and recommendations were made following the inspections. Inspections were made in connection with highway diversions to eliminate wherever possible existing railway crossings.

INTERLOCKING PLANTS, AND CHANGES TO PLANTS AND SIGNALS

Recommendations were made in connection with changes to 22 interlocking plants and 17 interlocking plants were inspected in connection with Operating Orders.

When applications are made by the railways for approval of plans, covering the installation of, and changes to, signals and interlocked switches at diamond crossings, bridges, or junctions, a thorough check of track and signal plant is made to ensure that the plant is designed to provide full protection for all train movements through the interlocking with signals and switches so arranged and interlocked mechanically, electrically, or both, to prevent trains from receiving conflicting indications.

Before the plants were placed in service, the Board's Engineer made a check in the field in all cases to ensure that circuits were installed in accordance with approved plan, and that the signals and switches functioned as intended. Recommendation was made to the Board in all cases in connection with the necessary Operating Order before the plants were put in operation.

During the year, approval was given to the installation of a traffic control system of signals on the Quebec North Shore and Labrador Railway, from Mile 110.0 to Mile 220.0, Province of Quebec, and the Canadian National Railways, from Mile 35.0 to Mile 102.0, Kashabowie Subdivision, Province of Ontario.

Approval was also given to the installation of, and changes to, automatic signals on the Canadian National Railways, and the Canadian Pacific Railway Company, in various parts of Canada, covering many miles of modernized signalling, the most extensive projects being on the C.P.R. North Bay Subdivision, between Chalk River and North Bay, Mile 0.0 to Mile 117.3, North Bay Subdivision; and on the C.N.R., Mile 0.0 to Mile 75.0, Ashcroft Subdivision, from Kamloops to Spence's Bridge, Province of British Columbia.

All such signal installations are thoroughly inspected and checked by the Board's Signal Engineer to ensure that the signals are installed in accordance with approved plan, and that they are functioning as intended, before final recommendation was made to the Board for approval of the signals as installed.

BRIDGES

During the year there were 61 railway bridges and 26 highway bridges and subways approved for construction and reconstruction. The use of heavier motive power has made it necessary to carry out various works capable of safely carrying the heavier rolling stock at speeds greatly in excess of those in existence some years ago. This involves strengthening and reconstruction of bridges and culverts. The plans in connection with these structures were all submitted and were examined by an Engineer of the Board, and recommendation was made to the Board in connection therewith. After the structures were completed, examinations were made in all cases by an Engineer of the Board to ascertain if the structures were built according to the approved plan and safe for the carriage of traffic.

In addition to the above, inspections were made of 49 bridges for safety of operation and recommendations were made for an Order of the Board authorizing the railway companies to operate over them.

CONSTRUCTION AND OPERATION OF BRANCH LINES AND INDUSTRIAL SPURS

The Engineering Department examined applications and plans in connection with the construction and operation over industrial spurs, and recommendations were made for 106 approving Orders.

MAINTENANCE OF TRACK AND STRUCTURES

One of the important duties of the Engineering Department of the Board is the inspection of track conditions to ensure safety of travel over approximately fifty-seven thousand miles of railway trackage in Canada under the Board's jurisdiction. The Board's Engineers throughout the year travelled over and

inspected all the Main Lines of railway and a considerable mileage of branch lines, to ensure the safety of track for public travel. Particularly close and intensive examination was made of any Subdivision where any accident took place to ensure that standard practice and standard precautions had been taken, and the trackage was being properly maintained.

TUNNELS, WATER, GAS, OIL AND SEWER PIPES, UNDERGROUND MINE WORKINGS

In addition to the inspections enumerated above, plans were examined in connection with applications for water, gas, and sewer pipes passing under the railways. In a number of cases these involved an inspection in the field.

A number of applications were received in connection with underground workings closely approaching the railway right-of-way and examinations and recommendations were made to ensure every safety precaution for the Board's consideration in issuing Order.

COMPANY PIPE LINES FOR GAS AND OIL

The Pipe Lines Act places under the jurisdiction of the Board all company pipe lines which are international or interprovincial. During the year the Trans Mountain Oil Pipe Line from Edmonton, Alberta to Vancouver, B.C., was completed. This oil pipe line is 711 miles in length. The Board's Engineers inspected this pipe line during its construction and were present when tests were made before the pipe line was put into effect.

The Engineering Department wishes to express its appreciation of the co-operation extended to it at all times during the past year by officials and engineers of the Provincial Highways Departments, Municipalities, Railways, and Pipe Line Companies.

CONTRIBUTIONS FROM RAILWAY GRADE CROSSING FUND

Protection	Location	Railway	Per cent	Contributions \$ cts.
Two flashing light signals and one bell	First public crossing south of the station at Upper Kent, Mileage 88-10, Shogomoc Subdivision, New Brunswick	C.P.R.	40	3,638 24
Extend protection circuits	First public crossing east of the station at Aldershot, Mileage 34-75, Oakville Sub., Ontario	C.N.R.	40	500 00
Change in protection	Hope and Woodstock Streets in the Village of Tavistock, Ontario	C.N.R.	40	200 00
Two flashing light signals and one bell	Crossing of Highway at New Annan, Mileage 42-3, Kensington Sub., P.E.I.	C.N.R.	40	1,990 79
Two flashing light signals and one bell	Crossing of Highway No. 47 at Goodwood, Ont., Mile 35-20, Uxbridge Subdivision	C.N.R.	40	2,640 00
Overhead bridge	Lot 2, Concession B, Henvey Twp., Parry Sound District, Mileage 65-55, Parry Sound Sub., Ont.	C.P.R.	40	48,000 00
Two flashing light signals and one bell in lieu of gates	Selkirk Avenue in the City of Winnipeg, Mileage 0-58, Winnipeg Beach Sub., Manitoba	C.P.R.	40	3,680 00
Two flashing light signals and one bell	Johnston Road crossing of the Esquimalt and Nanaimo Railway in the City of Alberni, B.C., Mileage 36-9, Alberni Sub.	C.P.R.	40	1,518 48
Two flashing light signals and one bell	Crossing in the Municipality of Ssanch, B.C., Mileage 1-66, Cowichan Sub.	C.N.R.	40	4,800 00
Two flashing light signals and one bell in lieu of wig wag and two bells	Highway No. 90 immediately south of the station at Essa, Mileage 58-86, MacTier Sub., Ont.	C.P.R.	40	365 48
Two flashing light signals and one bell, in lieu of two wig wags and two bells	Highway No. 43 just east of the station at Winchester, Mileage 87-8, Winchester Sub., Ont.	C.P.R.	40	2,742 36
Two flashing light signals and two bells, in lieu of wig wag and bells	Crossing of the Town Line Road and the Railway of the C.N.R. near Palgrave, Mileage 32-5, MacTier Sub. of the C.P.R., Ontario	C.P.R.	40	475 64
Improve sight lines	Northwest angle of Cook's crossing near Bridgewater, Mileage 1-83, Middleton Sub., N.S.	C.N.R.	40	90 70
Two flashing light signals and one bell	Crossing of Gamble Street in the City of Rouyn, Que.	C.N.R.	40	3,040 00
Two flashing light signals and one bell	Crossing of Gamble Street in the City of Rouyn, Que.	C.N.R.	40	2,420 00
Two flashing light signals and one bell	Highway at 0-3 miles south of Hale Station, Village of Brighton, Mileage 66-40, Shogomoc Sub., N.B.	C.P.R.	40	3,260 00
Two flashing light signals and one bell	Highway at 0-43 miles north of Upper Kent Station, Village of Upper Kent, Mileage 88-53, Shogomoc Sub., N.B.	C.P.R.	40	2,480 00
Two flashing light signals and one bell	Highway at 0-33 miles south of Highway No. 2 in the Village of River de Chute, Mileage 89-57, Shogomoc Sub., N.B.	C.P.R.	40	2,246 61
Two flashing light signals and one bell	Armen Street in the Town of Campbellton, Mileage 106-1, Bathurst Sub., N.B.	C.N.R.	40	2,950 04
Subway	St. Germaine Street, Rimouski, P.Q. Additional Grant (Original Grant \$84,960.00)	C.N.R.	40	43,465 00
Two flashing light signals and one bell	Kennedy Road, Township of Scarborough, Mileage 325-74, Oshawa Sub., Ont.	C.N.R.	40	3,580 00

Guard rail around standards of flashing light signals.	At crossing of Nairn Ave. between Eaton and Grey Streets, Winnipeg, Man.	C. P. R.	40	112 00
Two flashing light signals and one bell.	Ashland Avenue, London, Ont.	C. N. R.	40	2,540 00
Two flashing light signals and one bell.	Arthur St. (Provincial Highway No. 87), in the Town of Harrison, Mileage 5-77, Owen Sound Sub., Ontario.	C. N. R.	40	2,960 00
Overhead bridge.	Bridge over Highway No. 27 at Mileage 10-87, Galt Sub., Ontario.	C. P. R.	40	2,180 00
Improve sight lines.	In the northeast angle of the crossing at Mileage 32-17, Orangeville Sub., near Melville, County of Peel, Township of Caledon, Ontario	C. P. R.	40	102,000 00
Two flashing light signals and one bell in lieu of existing wig wag.	Crossing of Highway No. 27 near Midhurst, Mileage 68-4, MacTier Sub., Ont.	C. P. R.	40	791 66
Two flashing light signals and one bell in lieu of existing wig wag.	First public crossing north of Utterson, Mileage 23-2, Huntsville Sub., Ont.	C. P. R.	40	474 09
Two flashing light signals and one bell.	Crossing of the Trans-Canada Highway near Paddington, Mileage 147-05, Sprague Sub., Ont.	C. N. R.	40	2,015 39
Two flashing light signals and one bell.	Crossing of County Road No. 10, being the first crossing north of the station at Beeton, Mileage 40-06, MacTier Sub., Ont.	C. N. R.	40	4,130 00
Two flashing light signals and one bell, in lieu of two wig wags and two bells.	John Street in the Town of North Bay, Ont.	C. P. R.	40	2,790 00
Two manually controlled electrically operated short arm gates with flashing lights and bell, in lieu of mechanical gates.	18th Street in the City of Brandon, Man.	C. N. R.	40	715 00
Two flashing light signals and one bell.	Crossing of Highway at Mile 62-88, Heron Bay Sub., Ont.	C. P. R.	40	3,800 00
Two flashing light signals and one bell.	Crossing of Town Line West, between Toronto and Hamilton, in the Twp. of Toronto, Ont.	C. P. R.	40	3,120 00
Improve grade.	Crossing of highway between Lot 7, Concession B, and Lot 7, Concession A, in the Twp. of Amabel, Mileage 55-36, Owen Sound, Ontario.	C. N. R.	40	2,960 00
Improve grade.	Crossing of highway between Lot 6, Concession 2, and Lot 6, Concession 1, Twp. of Amabel, Mileage 56-18, Owen Sound, Ont.	C. N. R.	40	99 76
Two flashing light signals and one bell, in lieu of protection at Degg St., and two flashing light signals and one bell in lieu of protection at Park St., City of Chatham, Ont.	Crossings at Degg and Park Streets, City of Chatham, Ont., Concession 1 South, Twp. of Amabel, Mileage 4-28, Warton Sub., Ont.	C. N. R.	40	99 76
Improve grade.	55th Avenue in the City of Owen Sound, Ont.	C. N. R.	40	4,280 00
Improve sight lines.	Crossing of Third Avenue West in the City of Owen Sound, Ont.	C. N. R.	40	188 00
Building ramps to improve approaches to crossing.	Valois Ave., Montee des Sources Road, and Coolbreeze Avenue, in the Town of Pointe Claire, Que.	C. N. R.	40	46 88
Widening crossing, constructing two pedestrian subways, and installing automatic short arm gates, flashing light signals and bells.	Crossing of road allowance between Lots 24 and 25 in the First Concession from Lake Erie west of Ridgeway, Mileage 9-40, Dunnville Sub., Ont.	C. P. R.	40	16,888 00
Two flashing light signals and one bell.		C. N. R. & C. P. R.	40	106,800 00
		C. N. R.	40	2,840 00

CONTRIBUTIONS FROM RAILWAY GRADE CROSSING FUND

Protection	Location	Railway	Per cent	Contributions \$ cts.
Two flashing light signals and one bell	Crossing of the Trans-Canada Highway at Mileage 6-0, Langdon Sub., Alberta	C.P.R.	40	4,000 00
Two flashing light signals and one bell	Crossing of Dubreuil St. in the Town of Coniston, Mileage 71-3, Cartier Sub., Ont.	C.P.R.	40	3,540 00
Two flashing light signals and one bell	Crossing of 111th Ave. and 121st Street, Edmonton, Alta.	C.N.R.	40	4,740 00
Two flashing light signals and one bell	Ellice Ave. west of Strathcona St., Winnipeg, Man.	Midland Ry.	40	6,080 00
Two flashing light signals, two short arm gates and two bells	Highway No. 66 at Mileage 6-31, Kirkland Lake Sub., Ont.	C.N.R.	40	2,600 00
Two flashing light signals and one bell	Crossing of the 9th Line, in the Twp. of Trafalgar, Mileage 19-23, Oakville Sub., Ont.	C.N.R.	40	3,280 00
Two flashing light signals and one bell	Crossing of Highway at Mileage 99-92, Armagh Sub., Que.	C.N.R.	40	2,050 00
Two flashing light signals and one bell	Crossing of Highway No. 10, Mileage 34-21, Minto Sub., Town of Newcastle Bridge, N.B.	C.P.R.	40	2,820 00
Two flashing light signals and one bell, in lieu of present protection.	Crossing of Highway No. 4, being south of the station at Flesherton, Mileage 37-67, Owen Sound Sub., Ont.	C.P.R.	40	2,920 00
Two flashing light signals and one bell	Crossing of Capreol Road (Notre Dame Ave.), Mileage 4-8, Sudbury Terminals Sub., Ont.	C.N.R.	40	2,080 00
Improve sight lines by cutting down banks.	Crossing north of station at Inglewood in Concession 1, Twp. of Caledon, County of Peel, Ont., Mile 21-33, Orangeville Sub.	C.P.R.	40	220 00
Improve sight lines by cutting trees.	Crossing at Mileage 97-93, Armagh Sub., Mun. of St. Jean Chrysostome, Que.	C.N.R.	40	26 00
Improve sight lines by trimming trees and lowering banks	Crossing at Mileage 99-60, Armagh Sub., Mun. of St. Jean Chrysostome, Que.	C.N.R.	40	60 00
Improve sight lines by trimming trees and lowering banks	Crossing at Mileage 99-05, Armagh Sub., Mun. of St. Jean Chrysostome, Que.	C.N.R.	40	153 34
Improve sight lines by trimming trees and lowering banks	Crossing at Mileage 99-25, Armagh Sub., Que., in Mun. of St. Jean Chrysostome, Que.	C.N.R.	40	60 00
Two flashing light signals and one bell	Crossing just east of station at Kent Bridge, Ont., Mileage 54-65, Windsor Sub.	C.N.R.	40	2,320 00
Two flashing light signals and one bell	Crossing Highway No. 12, at Mileage 16-78, Port McNicoll Sub., Ont.	C.P.R.	40	2,780 00
Two flashing light signals and one bell	Highway No. 79 at North Bothwell, Ont., Mile 41-98, Windsor Sub.	C.P.R.	40	3,270 00
Two flashing light signals and one bell	Highway No. 41 at Roblinville, Ont., at Mileage 68-13, Belleville Sub.	C.P.R.	40	4,570 00
Overhead bridge	Highway No. 11, in Lot 3, Con. 6, Twp. of Orillia, County of Simcoe, Ont.	C.N.R.	40	84,160 00
Improve grades of approaches	Highway crossing at Mileage 25-94, Chalk River Sub., Twp. of Ramsay, County of Lanark, Ont.	C.P.R.	40	800 00

Two flashing light signals and one bell.	Crossing between N.E. 1, Sec. 8, Twp. 53, Range 23, W4M, and N.W. 4, Sec. 9, Twp. 53, Range 23, W4M, Alta., Mileage 165-20, Willington Sub.	C.P.R.	40	3,810 00
Cut down earth banks.	Crossing at Mileage 47-5, Reston Sub., Sask.	C.P.R.	40	100 00
Two flashing light signals and one bell.	Highway No. 74 north of New Sarum, Ont., Mileage 113-56, Cayuga Sub.	C.N.R.	40	2,480 00
Two flashing light signals and one bell.	Crossing of Highway No. 8 between Quyon and Mohr Stations, Mileage 27-94, Waltham Sub., Que.	C.P.R.	40	2,370 00
Two flashing light signals and one bell.	Crossing of Middle Road (Angle Road Crossing) in the Twp. of Trafalgar, Mileage 18-78, Oakville Sub., Ont.	C.N.R.	40	3,664 00
Two flashing light signals and one bell, with two additional units.	Highway No. 8 at Mileage 66-60, Waltham Sub., Que.	C.P.R.	40	2,590 00
Two flashing light signals and one bell, in lieu of two flood lights.	Crossing of Highway No. 17 at Martindale Road, Mileage 1-56, Webbwood Sub., Ont.	C.P.R.	40	3,900 00
Two flashing light signals and one bell.	Sunset Drive (Highway No. 4) in the City of St. Thomas, Ont.	C. & O. Ry.	40	3,400 00
Changes to protection.	Crossing at the Banff-Windermere Highway near Castle Mountain, Mileage 99-9, Laggan Sub., Alta.	C.P.R.	40	2,880 00
Two flashing light signals and one bell, and change circuits.	Crossing of Middle Road (Queen Elizabeth Way) at Burlington, Mileage 0-30, Milton Sub., Ont.	C.N.R.	40	75 70
Two flashing light signals and one bell in lieu of existing wig wag.	Highway No. 11, being first crossing east of station shelter at Le Cap, Mileage 0-91, Trois Riviere Sub., Que.	C.P.R.	40	2,072 00
Two flashing light signals and one bell, with special circuits, in lieu of existing protection.	First public crossing west of station at Ste. Florence, Mileage 41-11, Matapedia Sub., Que.	C.N.R.	40	3,240 00
Two flashing light signals and one bell.	Commercial Street, first crossing east of station at Berwick, Mileage 12-17, Kentville Sub., N.S.	C.P.R.	40	3,010 00
Two flashing light signals and one bell.	First public crossing south of the south siding switch at Ponoka, Mileage 34-53, Leduc Sub. Alta.	C.P.R.	40	4,425 00
Two sets of four flashing light units on mast Subway.	Court Street in the Town of Coaticook, Mileage 25-59, Sherbrooke Sub., Que.	C.N.R.	40	3,660 00
Close crossing and divert highway.	Pitt Street, Cornwall, Ont.	C.N.R.	40	1,550 00
Improve sight lines.	14th Street, Calgary, Alta.	C.P.R.	40	150,000 00
Improve sight lines.	Close Brook Street, and highway crossing wye tail track, Divert between Morel Road and Highway No. 17 in the Town of Mattawa, Ont.	C.P.R.	40	13,650 00
Subway.	North and south road allowance, between southwest quarter of Sec. 15, Twp. 12, Range 25, W2M, and Southwest quarter of Sec. 16, Twp. 12, Range 25, W2M, Sask.	C.N.R.	40	100 00
Two flashing light signals and one bell.	Crossing east of Ingewood Station, Mileage 39-14, Milton Sub., Ont.	C.N.R.	40	720 00
Two flashing light signals and one bell, in lieu of existing wig wag and bell.	Lot 3, Concession 1, east of Ingewood Station, Mileage 38-27, Milton Sub., Ont.	C.N.R.	40	200 00
	St. David Street, in the Town of Jonquiere, Que.	C.N.R.	40	74,000 00
	Highway No. 9B, at Mileage 45-96, Roues Point Sub., P.Q.	C.N.R.	40	2,970 00
	Crossing of Provincial Highway No. 10, first crossing west of station at Hardwood Ridge, Mileage 54-54, Chipman Sub., N.B.	C.N.R.	40	3,080 00

CONTRIBUTIONS FROM RAILWAY GRADE CROSSING FUND

Protection	Location	Railway	Per cent	Contributions \$ cts.
Two flashing light signals and one bell.....	Crossing of St. Charles St. in the City of Granby, Mileage 46-55, (Granby Sub., Que.	C.N.R.....	40	1,800 00
Two automatic short arm gates to existing protection.	Cascades St. (Sir Wilfrid Laurier Highway) in the City of St. Hyacinthe, Mileage 127, Drummondville Sub., Que.	C.N.R.....	40	6,040 00
Two flashing light signals and one bell.....	Crossing of Highway No. 98, about one mile north of Blenheim Jct., Mileage 8-33, No. 2 Sub., Ont.	C. & O. Ry.....	40	2,360 00
Two flashing light signals and one bell.....	Crossing of Mountain St. in the City of Granby, Mileage 13-7, West Shefford Sub., Que.	C.N.R.....	40	2,295 00
Two flashing light signals, two bells and two short arm gates.....	Crossing of Corydon Ave. west of Lindsay St., City of Winnipeg, Man.	Midland Ry. of Manitoba.....	40	7,100 00
Two flashing light signals, two short arm gates, with one bell in lieu of present protection.....	Crossing of Horne Ave. at Mission, Mileage 87-0, Cascade Sub., B.C.	C.P.R.....	40	7,131 00
Two flashing light signals and one bell.....	Crossing at Ottawa Street in the City of Kitchener, Mileage 11-4, Waterloo Sub., Ont.	C.P.R.....	40	2,530 00
Two flashing light signals and one bell.....	First public crossing west of the station at Appin, Mileage 25-74, Windsor Sub., Ont.	C.P.R.....	40	2,580 00
Two flashing light signals and one bell.....	Crossing of Highway No. 1 in the Village of Portage, Mileage 31-2, Tignish Sub., P.E.I.	C.N.R.....	40	2,480 00
Subway.....	Kenilworth Ave. south, in the City of Hamilton, Ont.	T.H. & B.....	40	150,000 00
Relocate wig wag signals and bell.....	Crossing at Edinburgh Road in the City of Guelph, Ont.	C.N.R.....	40	3,360 00
Change track circuits of wig wag.....	First crossing east of station at Norton, Mileage 56-62, Sussex Sub., N.B.	C.N.R.....	40	1,240 00
Two flashing light signals and one bell in each approach lane.....	Croydon Ave. in the City of Winnipeg, Mileage 1-21, Oak Point Sub., Man.	C.N.R.....	40	4,640 00
Two flashing light signals and bells.....	Prince Street in the City of Sorel, Mileage 44-47, Sorel Sub., Que.	C.N.R.....	40	2,480 00
Two flashing light signals and one bell.....	Highway No. 25A at St. Damien, Mileage 56-37, Armagh Sub., Que.	C.N.R.....	40	3,080 00
Two flashing light signals and one bell.....	Second Avenue West near 17th Street, in the City of Prince Albert, Sask.	C.N.R.....	40	4,355 00
Two flashing light signals and one bell.....	Southeast quarter of Section 13, Twp. 20, Range 29, W4M, and the southwest quarter of Sec. 18, Twp. 20, Range 28, W4M, at Mileage 30-9, MacLeod Sub., Alberta.	C.P.R.....	40	4,140 00
Two flashing lights and one bell, in lieu of present danger sign and bell.....	Crossing of highway near Eady, Twp. of Medonte, Mileage 86-0, MacTier Sub., Ont.	C.P.R.....	40	440 00
Improve sight lines.....	Southwest quadrant of the crossings of Highways Nos. 5 and 6, and railway, in the Town of Watson, Mileage 29-17, Melfort Sub., Sask.	C.P.R.....	40	30 00
Two flashing light signals and one bell, with two short arm gates.....	First Line East in the Twp. of Toronto, Mileage 13-87, Galt Sub., Ont.	C.P.R.....	40	11,860 00

Two flashing light signals and one bell.....	Provincial Highway No. 9, being third crossing north of station at Harrison, Mileage 0-42, Owen Sound Sub., Ont.....	C.N.R.....	40	2,080 00
Three red lamps on each approach gate, one red lamp on each exit gate.....	Front St. in the Town of Orillia, Mileage 86-2, Newmarket Sub., Ont. Crossing between Lots Nos. 11 and 12, in the Gore of Woodhouse, south of the Town of Simcoe, Mileage 0-57, Port Rowan Branch, Simcoe Sub., Ont.....	C.N.R.....	40	1,060 00
Improve sight lines of northeast and northwest angles.....	Second crossing east of station at Caledonia, Mileage 57-35, Dunnville Sub., Ont.....	C.N.R.....	40	1,400 00
Raise approaches.....	Kingsway Road to connect with Arthur St., City of Fort William, Ont.....	C.N.R.....	40	960 00
Divert road and close one crossing.....	Highway No. 11 in the Twp. of Orillia, County of Simcoe, Mileage 89-12, Bala Sub., Ont.....	C.N.R.....	40	5,393 00
Overhead bridge.....	Divert highway connecting Vermont Road No. 105 and Quebec Road No. 52, Twp. of Sutton, County of Brome, Que.....	C.N.R.....	40	124,000 00
Divert road and close two crossings.....	Crossing of highway near Winfield, Mileage 103-8, Okanagan Sub., B.C.....	C.P.R.....	40	14,000 00
Two flashing light signals and one bell, in lieu of existing wig wag.....	Highway No. 1 (Giles Crossing) in the County of Saint John, N.B., Mileage 18-52, Shore Line Sub.....	C.N.R.....	40	3,420 00
Two flashing light signals and one bell.....	White Point Road (Highway No. 3) in the Town of Liverpool, County of Queens, Mileage 1-70, Yarmouth Sub., N.S.....	C.P.R.....	40	2,840 00
Improve sight lines.....	Highway at Mileage 55-5, Newmarket Sub., Ont.....	C.N.R.....	40	2,360 00
Relocate wig wag and bell.....	St. Charles Road in the Town of Beaconsfield, Que.....	C.N.R.....	40	600 00
Two flashing light signals, two short arm gates, and two bells.....	Rosser Road, in the Village of Brooklands, Mileage 3-64, Carberry Sub., on C.P.R.; and Mile 5-74, Oak Point Sub. on the C.N.R., Manitoba.....	C.N.R.....	40	300 00
Improve existing protection.....	Main Street in the Town of Alexandria, Mileage 80-15, Alexandria Sub., Ont.....	C.N.R.....	40	7,680 00
Subway.....	East end Mountain Access Project in the City of Hamilton, Ont., Mileage 3-37, Hagersville Sub.....	C.N.R.....	40	920 00
Two flashing light signals and one bell.....	Highway No. 11 at Duro, Mileage 50-46, Asquith Sub., Sask.....	C.N.R.....	40	150,000 00
Two flashing light signals and one bell in lieu of existing wig wag.....	Canboro Road, near Fenwick, in the County of Welland, Mileage 7-16, Welland Sub., Ont.....	C.N.R.....	40	3,720 00
	T.H. & B.....		40	835 00
				1,357,888 83

DISTRIBUTION OF CONTRIBUTIONS BY PROVINCES

BRITISH COLUMBIA.....	\$ 16,869.48
ALBERTA.....	173,995.00
SASKATCHEWAN.....	8,305.00
MANITOBA.....	33,002.00
ONTARIO.....	795,291.63
QUEBEC.....	295,859.34
NEW BRUNSWICK.....	24,544.89
NOVA SCOTIA.....	5,460.70
PRINCE EDWARD ISLAND.....	4,470.79
NEWFOUNDLAND.....	—
	<hr/>
	\$ 1,357,888.83

ENGINEERING DEPARTMENT
January 21, 1954

THE STATEMENT BELOW SHOWS THE DIFFERENT WORKS WHICH WERE APPROVED FOR CONSTRUCTION BY ORDER OF THE BOARD ON RECOMMENDATION OF THE ENGINEERING DEPARTMENT AFTER STUDY OF THE APPLICATIONS AND PLANS, CHECKING OF ESTIMATES, INVESTIGATION OF COMPLAINTS AND ACCIDENTS, AND IN MANY CASES INSPECTION ON THE GROUND AND CONFERENCES WITH THE INTERESTED PARTIES, DURING THE YEAR 1953

Province	Highway Crossings Approved	Highway Crossings Closed	Widen Crossings	Construction and Operation over Branch Lines and Industrial Spurs	Pedestrian Crossings	Removal of Overhead Bridges	Railway Bridges	Highway Bridges and Subways	Approval of Operation over and under Bridges	Highway Diversions	Less than Standard Clearances	Interlocking Plants and Changes to Interlocking Plants Approved	Operation through Interlocker	Crossings Protected by Flashing Light Signals and Bell	Changes to Operating Circuits of Flashing Light Signals, and Bells, and Wig Wags	Electrically Controlled Gates and Flashing Lights	Wire Crossings	Water, Gas, Oil and Sewer Pipes Over and Under Railways	Establish Sight Lines and Improve Grade	Location of Telephone Line	Exempt from Fencing and Cattle Guards	Abandonment of Operation of Railway Line	Approval and Changes to C.T.C. and Block Signals	Pipes under Company's Pipe Line	Location of Pipe Line	Transportation of Oil or Gas through Pipe Lines	Route Map, Oil or Gas Lines	Relocate Railway	Railway Connections	Carriage of Traffic	Construction of Oil or Gas Lines under Rivers	Location of Railway	Road Crossings Over Company's Pipe Line	Tunnels under Railway	Total
B.C.	12	1	14	1	1	1	20	3	14	1	1	1	1	4	1	1	1	1	1	1	5	3	8	15	1	1	1	1	1	1	1	1	1	1	106
Alta.	38	4	20	1	1	1	8	1	12	1	4	1	1	7	2	2	1	1	1	1	59	1	8	11	10	1	1	1	1	2	1	1	6	1	210
Sask.	15	5	10	1	1	1	4	1	1	1	1	4	5	2	2	2	1	4	2	57	1	5	4	2	1	1	1	1	1	1	1	1	1	1	132
Man.	26	2	15	1	1	1	2	1	1	1	1	3	6	3	1	4	1	1	1	1	12	1	5	1	1	1	1	1	1	1	1	1	1	1	86
Ont.	47	7	37	3	3	2	12	14	11	3	10	7	4	43	24	1	1	9	10	19	11	1	19	6	2	1	3	1	1	1	2	1	6	320	
Que.	31	7	15	2	2	1	9	6	7	2	8	6	2	16	12	2	1	1	6	1	1	1	9	1	1	1	3	1	1	1	1	1	1	158	
N.B.	6	1	1	1	1	1	3	1	2	1	2	1	9	4	1	1	1	1	1	1	1	2	2	1	1	2	2	1	1	1	1	1	1	31	
N.S.	7	1	1	1	1	1	2	1	1	1	4	1	3	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	23	
P.E.I.	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	
Nfld.	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	
Total..	185	26	38	106	7	3	61	26	49	8	29	22	17	89	46	8	1	15	21	20	145	6	59	15	34	4	2	8	3	3	3	1	8	6	1,084

APPENDIX "E"

OTTAWA, Ontario,
February 10th, 1954.

E. R. HOPKINS, Esq.,
Secretary,
Board of Transport Commissioners,
OTTAWA.

DEAR SIR:

I submit for the Board's Forty-Ninth Report, the Annual Report of the Operating Department for the year ended December 31st, 1953.

PART I—OPERATING

As an indication of the activities of this Department, the following table will be of interest:

1. Accidents investigated.....	3,215
2. (a) Highway crossing accidents investigated.....	487
(b) Other railway accidents investigated.....	2,728
(c) Recommendations made by Operating Inspectors for protection, or other improvements at highway crossings.....	114
3. Locomotives inspected.....	8,582
4. Internal examinations of locomotive boilers.....	249
5. Cars inspected.....	84,705
(a) Freight cars.....	77,987
(b) Passenger equipment.....	6,718
6. (a) Investigations of applications or complaints re train service changes.....	46
(b) Applications or complaints re station services.....	69
7. Applications re storage and handling of flammable liquids and gases.....	413
8. Fire reports processed.....	697

For convenience, all detail statements Nos. 1 to 12 are indexed as follows:

Statement No. 1—

Record of accidents on railways subject to the Board's jurisdiction.

Statement No. 2—

Character of accidents showing number of passengers, employees and others killed and injured.

Statement No. 3—

Character of accidents showing railways on which the accidents occurred, and number of persons killed and injured.

HIGHWAY CROSSING ACCIDENTS

Statement No. 4—

Highway crossing accidents, describing protection; also showing all crossing accidents for a five-year period ended December 31, 1953.

Statement No. 5—

Highway crossing accidents by Provinces for five-year period ended December 31, 1953.

Statement No. 6—

Showing various types of crossing accidents.

Statement No. 7—

Graphic chart showing number of highway crossing accidents and registration of motor vehicles.

Statement No. 8—

Showing defects on freight cars reported by Board's Inspectors.

Statement No. 9—

Showing defects on passenger equipment reported by Board's Inspectors.

Statement No. 10—

Showing number of defects on locomotives reported by Board's Inspectors; also a Summary of Locomotives inspected, number defective and total defects.

Statement No. 11—

Showing Crown Sheets damaged on locomotives. There were no boiler explosions.

Statement No. 12—

Summary of reports of fires in Forested Areas originating within 300 feet of track along railway lines under the Board's jurisdiction.

REMARKS

1. During the year ended December 31, 1953, a Book of Operating Rules and Instructions governing operation of trains over the Fraser River Bridge, New Westminster, British Columbia, was submitted to the Board by the Department of Public Works, Canada, for approval.

Compilation of such a Book of Rules required close scrutiny and application, since the safety of operation of trains of three railways, the Canadian National, the Great Northern and the British Columbia Electric Railway Company is involved. Numerous meetings were held by the Board's Officers with representatives of all railways concerned, resulting in a revised set of Operating Rules being drafted, which is now in the Printer's hands.

2. An extensive review was made of a Book of Operating Rules for use on the New York Central, St. Lawrence, Adirondack and Ottawa Divisions. In May 1953, following this review a Book of Rules for the government of the above mentioned Divisions of the New York Central System was given formal approval by Board's Order No. 81319. The Canada Division represents the major operation of the New York Central lines in Canada, and operates under the Uniform Code of Operating Rules.

3. Similar action was taken in connection with the Book of Operating Rules of the Great Northern Railway Company, and a recommendation was made to the Board for approval. Formal approval was given to the Consolidated Code of Operating Rules and General Instructions by Board's Order No. 80916, dated February 26, 1953.

This, together with measures taken to adequately carry out the provisions of Board's Regulations and Orders not especially covered by the Operating Rules, embraces all operation of the Great Northern Railway Company in Canada.

4. For some considerable time a review of the Maintenance of Way Flagging Rules was under consideration and extensive study has been given the matter.

As a result of these negotiations, additional safeguards have been provided in the revised Regulations which were recommended to the Board for approval, resulting in the issuance of Board's General Order No. 785, dated May 14, 1953.

5. *Newfoundland Railway.* This railway, comprising 705 miles of track, came under the Board's jurisdiction in 1949. In order to give adequate inspection of railway equipment and to more effectively observe operating conditions, an Inspector was appointed and located at St. John's, Newfoundland, where the Board established an office in August 1953.

6. In the light of the steady increase of Diesel locomotives replacing steam locomotives, the Board's inspection staff at Ottawa was increased by the appointment of a Diesel Inspector, appointed April 1, 1953. The Board also appointed a District Inspector of Car Equipment, effective October 1, 1953, assigned to the Board's Montreal office.

The accomplishment of the work briefly described in this Report necessitated the travelling of 532,185 miles by the Officers of this Department.

It will also be of interest to note that during the year 1953, approximately 28,900,000 passengers travelled on Canadian railways; the passenger train mileage totalling approximately 48,100,000 miles.

PART II—MECHANICAL

STATISTICS

<i>Motive Power—</i>	
Number of Locomotives.....	5,528
Reports of Hydrostatic Tests, etc.....	65,470
<i>Inspection of Motive Power—</i>	
Locomotive Inspections.....	8,582
Locomotives found defective.....	2,016
Defects.....	3,671
<i>Locomotive Boilers—</i>	
Applications received from railways.....	254
Internal inspections made.....	249
Applications granted.....	247
Applications refused.....	2
Applications withdrawn after inspection was made.....	—
<i>Stationary Boilers—</i>	
Number of stationary boilers.....	1,183
Inspection reports.....	2,281
Inspections made.....	346
Fire protective appliance inspection reports.....	1,108
<i>Safety Appliance and Equipment Inspections—</i>	
Freight cars inspected.....	77,987
Freight cars found defective.....	5,799
Defects.....	8,284
Passenger coaches inspected.....	6,718
Passenger coaches found defective.....	418
Defects.....	621
<i>Inspection of Freight Cars for Correct Tare Weight—</i>	
Number of cars inspected.....	7,815
Number of cars found overdue for weighing for tare.....	205
<i>Inspection of Passenger Cars for Improper Air Brake Piston Travel—</i>	
Number of cars inspected.....	2,757
Number of cars with improper piston travel.....	23
<i>Inspection of Freight Cars for Improper Air Brake Piston Travel—</i>	
Number of Cars inspected.....	29,288
Number of Cars with improper piston travel.....	1,212
<i>Inspection and Testing of Air Reservoirs (Other than Locomotives)—</i>	
Number of Reservoirs.....	4,855
Number of inspection reports.....	4,796

INSPECTION ACTIVITIES

The major activity of the Mechanical Inspectors is examination of motive power and rolling stock equipment, including steam locomotives, locomotives other than steam, freight and passenger cars, work equipment units and stationary boilers. The accompanying tables show clearly the ramification of inspection activities in order to ensure safety for the public and for railway employees.

In addition to the work connected with inspection services, the Department's Mechanical Officers must engage in a variety of special problems brought to attention by the railways, railway labour groups and other interested parties. Moreover, Canadian railways are quick to adopt technological advances applicable to the industry wherever these appear advantageous. This process is continuous and tends to increasing departmental activities.

Information on some of the more significant questions handled by the Department during 1953 is given below:

APPROVAL OF RAILWAY EQUIPMENT

During the year the Departmental Officers were called upon to examine various kinds of new rolling stock and ancillary equipment. The items included railway mail cars, diesel direct drive rail cars, suburban passenger train cars, heavy duty ore cars, multi-pressure air brake equipment, air operated locomotive whistles, air operated whistles for snow plows, steam generator equipment, anti-skid footboard material, safety appliances, diesel locomotives and various types of heating boilers.

PASSENGER TRAIN CARS—CONSTRUCTION AND LIGHTING

Throughout its history, for various reasons of safety, the Board has given attention to the construction of passenger train cars and for many years has fostered the use of steel, electrically lighted equipment.

Over the years, there has been a reduction in the inventories of gas lighted cars of wooden construction used on Canadian railways.

The major railways presently have undertaken, at great cost, the acquisition of a large number of passenger carrying units. It is expected that these new units, when placed in service, will not only add to the comfort and convenience of the travelling public but they will make possible the retirement of older type units.

Diesel Locomotive Construction

Starting a few years ago, a study was made of level crossing accidents in the United States involving diesel electric locomotives and highway vehicles, more especially gasoline trucks. Some of these accidents were serious, indeed, and resulted in death and injury to engine crews. Preliminary investigation indicated that worthwhile additional safety would accrue to these railway employees by modification of the locomotive front ends.

When the Locomotive Enginemen's organizations brought the matter formally to the attention of the Board, Departmental Mechanical Officers continued the investigation, after which appropriate representation was made to the railways. There followed protracted discussions and conferences involving representatives of the Board, the railways, locomotive builders and Transportation Brotherhoods. As a result of the negotiations, all Canadian locomotive builders have re-designed nose doors and strengthened the front ends of diesel "A" units. Modifications which have been accepted by the Board and the railways are generally satisfactory and will undoubtedly provide desirable additional safety for train service employees, and the public.

Emergency Stopping of Locomotives

For some considerable time, the Board's Officers have given close attention to emergency stopping of locomotives where, due to accident from collision or other damage, the air brake system is rendered non-effective. On representation from the Department, the railways, locomotive builders and hand brake equipment manufacturers undertook the development, installation and testing of high capacity hand brake equipment calculated to be effective in stopping runaway units. Tests on tangent level track revealed the general success of the project.

Starting last spring, Canadian Pacific Railway Company carried out a series of excellent field tests in heavy grade territory to observe the effectiveness of high capacity hand brake equipment when installed on various diesel electric "A" unit locomotives manufactured in Canada by Canadian builders. Actual stopping times and distances were recorded and other observations made while the locomotives ran freely down severe descending grades starting at various pre-arranged target speeds. The information gathered is of permanent value and the tests demonstrated that the hand brake equipment presently being installed on diesel road units is capable of stopping runaway units in reasonable time and distance. This, of course, should result in additional safety, especially for engine crews.

Locomotive Inventories—Major Railways

The table below shows that there was a net gain of 38 locomotive units on major Canadian railways in 1953. These railways installed 181 diesel electric units and retired 143 steam units. Some 91 coal burning locomotives were converted during the year and are now oil fired. This represents a substantial increase in the total number of oil burning locomotives in service.

Year	Steam Locomotives					
	Coal Fired		Oil Fired		Total	
	C.N.R.	C.P.R.	C.N.R.	C.P.R.	C.N.R.	C.P.R.
1949.....	2,319	1,490	190	230	2,509	1,720
1950.....	2,224	1,429	249	261	2,473	1,690
1951.....	2,188	1,398	252	266	2,440	1,664
1952.....	2,134	1,361	283	261	2,417	1,622
1953.....	1,932	1,329	370	265	2,302	1,594

Year	Diesel-Electric Locomotives					
	Road Locos.		Switchers		Total	
	C.N.R.	C.P.R.	C.N.R.	C.P.R.	C.N.R.	C.P.R.
1949.....	30	33	118	99	148	132
1950.....	56	87	121	103	177	190
1951.....	120	117	160	115	280	232
1952.....	202	159	193	133	395	292
1953.....	277	217	226	148	503	365

Inspection Forms—Locomotives Other than Steam

Forms designed for use in connection with locomotives other than steam and their steam generators have been given study by the Board's Mechanical Officers for some time past. Several types of forms have been prepared on a tentative basis and brought before the railways subject to the Board's jurisdiction through the Railway Association of Canada. This work and the necessary negotiations culminated in an informal conference at which Board representatives and railway officers discussed freely all phases of the question. The scope and make-up of the cab forms was agreed to, in principle. The preparation of a General Order to give effect to the cab forms and setting down inspection and other requirements for locomotives other than steam has been undertaken. It is expected that cab forms for locomotives other than steam will be brought into general use during 1954.

Air Brake Inspections

The Board's Car Inspectors, throughout the year, carried out detailed inspection of air brake equipment on all types of rolling stock units. Some 30,000 car equipment units were examined to ensure proper piston travel of the air brakes.

En Route Inspection of Locomotives

During the year, the Board's Locomotive Inspectors rode and examined some 400 locomotives and observed their actual operating performance. Various adverse conditions, corrections of which will provide additional safety for employees and the public, were brought to the attention of appropriate railway officers.

PART III—FLAMMABLE LIQUIDS, GASES AND EXPLOSIVES

Flammable Liquids and Gases: Handling and Storage on and adjacent to Railway Property

Plans and profiles of proposed installations were carefully examined by Inspectors of the Board to eliminate objectionable features before construction commences. Under the provisions of General Order No. 716, applications for

346 installations were received for approval of location and/or changes thereto. These, together with 45 applications in abeyance from 1952, were disposed of as follows:

Cancelled.....	10
In Abeyance.....	88
Approved and Orders Issued.....	293
	<u>391</u>

The 293 approved applications covered one refinery and 292 bulk storage plants; 105 of which were new installations and 18 were temporary loading facilities required for incoming oil wells pending determination of output or installation of permanent facilities.

Under the provisions of General Order No. 597, twenty-two applications were approved for the handling and storage of liquefied petroleum gas.

TABLE OF INSTALLATIONS FOR FLAMMABLE LIQUIDS AND GASES

	Number of Companies Making Installations	Number of Installations	Number of Tanks Installed 1953	Total Storage Capacity (Imp. gals.)
Flammable Liquids.....	73	293	773	50,687,000
Flammable Gases.....	20	22	30	612,000

Many field inspections of oil and gas installations were made during the year to ensure completion in accordance with approved plans.

Regulations for the Transportation of Explosives and Other Dangerous Articles in Rail Freight and Rail Express Service including Specifications for Shipping Containers

During the year, a new publication of these Regulations was issued March 1, effective June 1, 1953, approved under General Order No. 779. In addition to this, Supplement No. 1 to these Regulations was issued September 1, effective December 15, 1953, approved under General Order No. 786. Supplement No. 2 to these Regulations is in process and will be issued February 1, 1954. Orders Nos. 81400 and 82100 were issued during 1953 in connection with these Regulations.

Conferences have been held with the Chief Inspector of the Bureau of Explosives, New York, resulting in greater uniformity of Regulations for the Transportation of Dangerous Articles in the United States and Canada and the acceptance of the Board's Special Permits by the Interstate Commerce Commission for transportation in the United States. In addition, conferences were held with representatives of various chemical manufacturers, resulting in revision of the Regulations to include additional articles and new types of packaging.

The system of Special Permits for extraordinary shipments has functioned satisfactorily and 42 Permits were issued during 1953.

Cylinders for Compressed Gases

Continued interest has been shown by manufacturers for the production of various types of compressed gas cylinders in Canada, as well as for their importation. This has necessitated conferences with the manufacturers and inspection agencies concerning the appropriate rules and regulations. During the year, three Canadian firms were producing cylinders to B.T.C. Specifications 3E, 4B and 4BA.

PART IV—FIRE PREVENTION

Detailed statistics are shown in Statement No. 12, appended hereto, from which it will be noted 586 fires occurred during the fire season of 1953, within 15,103 miles of railway classified as forested territory. In addition, 111 fires were also reported as originating and burning in ties in the track, which did not spread or cause damage other than to track ties.

Railway Fire Patrols

The fire patrol requirements, under the terms of paragraph 29 of General Order No. 548, were addressed to all the railways concerned.

Statistics showing railway forested mileage upon which patrols are prescribed follow:

Total miles of railway classified as being in forested territory for fire protection purposes.....	15,102.67
Special section patrols prescribed on.....	5,287.34
Special velocipede patrols prescribed on.....	116.84
Special power speeder patrols prescribed on.....	2,060.89
Other type special patrol prescribed on.....	113.00
Total miles on which special patrol prescribed.....	7,578.07
Total Special Patrolmen (estimated).....	937
Average number of miles of track per patrolman.....	8.08
Total miles in forested territory on which no special patrol required, detection, reporting and extinguishing of fires being a part of the regular duties of the section forces and other employees.....	7,524.60

Weather Conditions

While some parts of Canada, notably British Columbia and Western Alberta, received adequate or above average rainfall, other portions such as the Northern Prairie Provinces and Quebec, suffered from a scarcity of rain. Ontario also experienced two periods of high fire hazard.

As a result, the number of fires that occurred are slightly above average but, owing to two fires—one in Alberta and one in Quebec—the resulting loss and damage was greatly increased.

Inspection

Under the co-operative arrangements inaugurated in 1912 with the various Federal and Provincial Forest Services, 297 officers and men of such services were under appointment as Inspectors of the Board, distributed as follows:

Newfoundland, Department of Natural Resources.....	3
Nova Scotia, Department of Lands and Forests, Forest Service.....	23
New Brunswick, Department of Lands and Mines, Forest Service.....	12
Quebec, Department of Lands and Forests, Forest Protection Service.....	30
Ontario, Department of Lands and Forests, Division of Forest Protection.....	109
Manitoba, Department of Mines and Natural Resources, Forest Service.....	7
Saskatchewan, Department of Natural Resources, Office of Director of Forests...	8
Alberta, Department of Lands and Forests, Office of Director of Forestry.....	12
Government of Canada, Department of Northern Affairs and National Resources, National Parks Branch.....	4
Government of Canada, Northern Administration and Lands Branch, Yukon....	1
British Columbia, Department of Lands and Forests, Forest Service.....	88

Of the above, 27 officers were given appointments as Locomotive Fire Appliance Inspectors, distributed as follows:

Nova Scotia, Department of Lands and Forests, Forest Service.....	2
New Brunswick, Department of Lands and Mines, Forest Service.....	1
Quebec, Department of Lands and Forests, Forest Protection Service.....	1
Ontario, Department of Lands and Forests, Division of Forest Protection.....	19
British Columbia, Department of Lands and Forests, Forest Service.....	4

During the fire season of 1953, these officers inspected the fire appliances of 1,627 locomotives; 34 locomotives were found defective involving 8 front end and 26 ashpan defects. In addition, fire appliances were inspected on 3,446 locomotives by the Board's permanent staff, 37 locomotives being found defective, involving 28 front end and 32 ashpan defects. A combined total of 5,073 inspections were made in connection with railway fire prevention.

FIREGUARDS, 1953

Railway	Mileage both sides of track to be accounted for exclusive of approved exemptions	Fireguard mileage constructed or maintained during year	Percentage completion
Canadian National.....	3,004.10	1,496.60	49.4
Canadian Pacific.....	3,141.61	2,347.26	74.70
Northern Alberta.....	17.00	15.50	91.00
	6,162.71	3,859.36	62.62

R. M. MacDonald,
Director of Operation.

STATEMENT NO. 1—PASSENGERS, EMPLOYEES AND OTHERS KILLED AND INJURED
ON RAILWAYS UNDER THE BOARD'S JURISDICTION FOR YEAR ENDED
DECEMBER 31, 1953

Name of Railway	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Canadian National.....	3	272	22	987	141	387	1,375	166	1,646
Canadian Pacific.....	3	376	12	1,218	109	294	1,715	124	1,888
Algoma Central & Hudson Bay.....		1	1	2	1	7	8	2	10
British Columbia Electric.....					1	5	3	1	5
Chesapeake & Ohio.....					2	2	3	2	2
Cumberland Railway & Coal.....						1	1		1
Dominion Atlantic.....		1		7	8	2	12	8	10
Esquimalt & Nanaimo.....				3	3	9	12	3	12
Grand River.....				4	2	14	11	2	18
Great Northern.....					2	3	4	2	3
Lake Erie & Northern.....					1		1	1	
London & Port Stanley.....		3		4	1	2	3	1	9
Maritime Coal Railway & Power.....						1	1		1
Michigan Central.....	1			2	7	3	9	8	5
Midland Railway of Mani- toba.....						2	2		2
Montreal & Southern Counties.....					1	8	5	1	8
New York Central.....		1		4		5	9		10
Niagara, St. Catharines & Toronto.....				2	2	5	5	2	7
Nipissing Central.....						2	2		2
Northern Alberta.....		2		15		4	19		21
Oshawa.....				2		2	4		4
Quebec Central.....				1		1	2		2
Sydney & Louisburg.....				1	3	4	3	3	5
Toronto, Hamilton & Buffalo.....				3		4	5		7
White Pass & Yukon.....		2					1		2
Totals.....	7	658	35	2,255	284	767	3,215	326	3,680

STATEMENT NO. 2—PASSENGERS, EMPLOYEES AND OTHERS KILLED AND INJURED,
AND NATURE OF ACCIDENTS, FOR YEAR ENDED DECEMBER 31, 1953

Character of Accident	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Derailment.....	1	123	5	58		4	31	6	185
Collision head-on.....		54	1	23		2	7	1	79
Collision rear-end.....		24	1	21			6	1	45
Collisions, Miscellaneous.....				3			1		3
Collision with cars account open switch.....		4		9		2	3		15
Equipment Struck in yard during switching or transfer movement in- cluding sideswipes of individual equipment in yards.....		2	1	39			23	1	41
Sideswipe.....		3		9		1	7		13
Public highway crossing protected by gates.....					1	11	8	1	11
Public highway crossing protected by gates— automatic.....				2		1	2		3
Public highway crossing protected by bell.....					1	4	3	1	4
Public highway crossing protected by bell and wigwag.....		3		3	18	40	38	18	46
Public highway crossing protected by flashing lights and bell.....				5	9	39	35	9	44
Public highway crossing protected by watchmen.....				1		15	9		16
Public highway crossing unprotected.....		23	1	28	147	481	392	148	532
Private crossing.....				4	23	40	52	23	44
Trespassing.....					80	75	150	80	75
Working on or about en- gine.....				228			226		228
Miscellaneous.....		18	3	298	2	15	330	5	331
Adjusting couplers, coupl- ing and uncoupling.....				54			54		54
Run down by engine or car between stations.....			1	2			3	1	2
Handcar—accidents caus- ed by handcar, motor or velocipede.....			2	74	1	6	56	3	80
Handcar, motor-car, velo- cipede struck by train..			8	27			29	8	27
Crawling between cars, over couplers.....				5	1	1	7	1	6
Struck by engine or cars on adjoining track.....			2	25			27	2	25
Struck by switch stand, water spout, mail crane or other projection.....				27			27		27
Crushed between cars and buildings, lumber piles..				12			12		12
Getting on and off pas- senger trains.....	1	95		1		4	100	1	100
Injured when taking coal or water.....				23			23		23
Rock slides, or other ob- structions on track.....		1		4			3		5
Rough coupling.....		4		67		9	71		80
Riding on pilot or foot- board of engine.....				2		1	3		3
Obstructions, overhead and on ground.....				16			16		16
Falling off top of car.....				19			19		19
Falling between cars.....			1	5			6	1	5
Application and handling of air brakes, starting and stopping of trains, adjusting slack.....		33		135		2	154		170
Employees getting off train				281			281		281

STATEMENT NO. 2—PASSENGERS, EMPLOYEES AND OTHERS KILLED AND INJURED,
AND NATURE OF ACCIDENT, FOR YEAR ENDED DECEMBER 31, 1953—*Concluded*

Character of Accident	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Employees boarding train				135			133		135
Slipping on ice				58			58		58
Doors closing and other minor accidents in bag- gage cars and coaches		236		155			390		391
Run down by engine or cars at stations or in yards		1	6	42	1	2	52	7	45
Caught in frog, guard rail, or switch rod				3			3		3
Caught by engine or car while throwing switch				2			2		2
Falling off side or end ladders of cars			2	71		1	74	2	72
Handbrake—accidents while working hand- brake				120			120		120
Handling freight or bag- gage				34			34		34
Loading and unloading O.C.S. materials				35			34		35
Work train equipment			1	13		1	11	1	14
Cars moved while being loaded or unloaded				2		4	5		6
Carmen working on or under cars on running track when moved				4			4		4
Chaining or unchaining cars				1			1		1
Coupling or uncoupling hose				24			24		24
Turning angle-cock				12			12		12
Coach window falling		4					4		4
Loads shifting in transit or switching				4			4		4
Defective bridges				1			1		1
Falling or jumping off pas- senger train between stations	2	13		2		1	18	2	16
Cars running away not under control				12		1	8		13
Washout				6			3		6
Individual derailment of equipment in yard tracks				3			2		3
Accidents as a result of handling of explosives and other dangerous ar- ticles	2	6		4		4	2	2	14
Fires occurring in passen- ger equipment	1	11		2			2	1	13
Totals	7	658	35	2,255	284	767	3,215	326	3,680

STATEMENT NO. 3—CHARACTER OF ACCIDENTS AND NUMBER OF PERSONS KILLED AND INJURED ON RAILWAYS FOR YEAR ENDED DECEMBER 31, 1953

	C.N.R.			C.P.R.			Miscellaneous Railways			Total	
	Acci- dents	Killed	Injured	Acci- dents	Killed	Injured	Acci- dents	Killed	Injured	Killed	Injured
Derailment.....	21	3	133	9	3	50	1	.....	2	6	185
Collision head-on.....	6	1	77	1	.....	2	.....	.....	.....	1	79
Collision rear-end.....	4	.....	11	2	1	34	.....	.....	.....	1	45
Collisions, miscellaneous.....	.....	.....	.....	.....	.....	.....	1	.....	3	.....	3
Collision with cars account open switch.....	.....	.....	.....	.....	.....	.....	1	.....	2	.....	15
Equipment struck in yard during switching or trans- fer movement including sideswipes of individual equipment in yards.....	1	.....	11	1	.....	2	1	.....	.....	.....	.....
Sideswipe.....	12	1	19	10	.....	21	1	.....	1	1	41
Public highway crossing protected by gates.....	5	.....	10	2	.....	3	.....	.....	.....	.....	13
Public highway crossing protected by gates—auto- matic.....	5	.....	9	3	1	2	.....	.....	.....	1	11
Public highway crossing protected by bell.....	2	.....	3	.....	.....	.....	.....	.....	.....	.....	3
Public highway crossing protected by bell and wigwag.....	2	1	2	1	.....	2	.....	.....	.....	1	4
Public highway crossing protected by flashing lights and bell.....	24	11	26	7	2	11	7	5	9	18	46
Public highway crossing protected by watchmen.....	19	6	23	13	3	15	3	.....	6	9	44
Public highway crossing unprotected.....	4	.....	8	2	.....	2	3	.....	6	.....	16
Private crossing.....	187	57	248	157	68	222	48	23	62	148	532
Trespassing.....	29	15	23	17	6	16	6	2	5	23	44
Working on or about engine.....	86	48	43	58	28	30	6	4	2	80	75
Miscellaneous.....	104	.....	122	122	.....	122	.....	.....	.....	.....	228
Adjusting couplers, coupling and uncoupling.....	105	5	103	212	.....	215	13	.....	13	5	331
Run down by engine or car between stations.....	25	.....	25	28	.....	28	1	.....	1	.....	54
Handcar—accidents caused by handcar, motor or velocipede.....	1	.....	1	2	1	.....	.....	.....	.....	1	2
Handcar, motor-car, velocipede struck by train.....	49	2	68	4	.....	8	3	1	4	3	80
Crawling between cars, over couplers.....	19	4	19	10	4	8	.....	.....	.....	8	27
Struck by engine or cars on adjoining track.....	2	.....	2	5	1	4	.....	.....	.....	1	6
Struck by switch stand, water spout, mail crane or other projection.....	12	1	11	15	1	14	.....	.....	.....	2	25
Crushed between cars and buildings, lumber piles.....	8	.....	8	18	.....	18	1	.....	1	.....	27
Getting on and off passenger trains.....	4	.....	4	8	.....	8	.....	.....	.....	.....	12
Injured when taking coal or water.....	26	1	25	72	.....	73	2	.....	2	1	100
Rock slides, or other obstructions on track.....	5	.....	5	18	.....	18	.....	.....	.....	.....	23
Rough coupling.....	2	.....	3	3	1	2	.....	.....	.....	.....	5
Riding on pilot or footboard of engine.....	33	.....	38	35	.....	39	3	.....	3	.....	80
Obstructions, overhead and on ground.....	2	.....	2	1	.....	1	.....	.....	.....	.....	3
	8	.....	8	7	.....	7	1	.....	1	.....	16

STATEMENT NO. 4—PARTICULARS OF ALL HIGHWAY CROSSING ACCIDENTS WITH DESCRIPTION OF PROTECTION OR NON-PROTECTION IN EFFECT FOR THE YEAR ENDING DECEMBER 31, 1953

—	New-found-land		Prince Edward Island		Nova Scotia		New Brunswick		Quebec		Ontario		Manitoba		Saskatchewan		Alberta		British Columbia		Totals												
	A.	K.	I.	A.	K.	I.	A.	K.	I.	A.	K.	I.	A.	K.	I.	A.	K.	I.	A.	K.	I.	A.	K.	I.									
Gates, Manual.....																																	
Gates, Automatic.....									4	1	3	7					1																
Bell.....													1				1																
Bell and Wigwag.....												2	1	2																			
Flashing Lights and Bell.....												7	25	15	22	1		2	1	3													
Watchman.....																																	
Unprotected.....	1		1	1								7	14				2																
Totals.....	1		1	1		1	8	10	8	5	8	36	109	144	48	178	40	12	80	50	13	55	51	17	58	26	7	34	392	148	532		
	1		1	1		1	11	11	13	12	5	19	83	42	134	198	67	245	42	13	81	52	13	57	58	19	66	29	7	39	487	177	656

—						
Number of accidents which occurred at crossings protected by Gates, Manual.....						
Number of accidents which occurred at crossings protected by Gates, Automatic.....						
Number of accidents which occurred at crossings protected by Bell.....						
Number of accidents which occurred at crossings protected by Bell and Wigwag.....						
Number of accidents which occurred at crossings protected by Flashing Light Signals and Bells.....						
Number of accidents which occurred at crossings protected by Automatic Highway Traffic Signals.....						
Number of accidents which occurred at crossings protected by Watchman.....						
Number of accidents which occurred at crossings unprotected.....						
Totals.....						
1949						
1950						
1951						
1952						
1953						
10						
9						
9						
7						
59						
57						
22						
26						
39						
41						
53						
7						
1						
393						
356						
441						
457						
463						
487						
364						
392						
490						
463						
487						
7						
2						
3						
38						
35						
9						
392						
463						
487						

STATEMENT NO. 5. HIGHWAY CROSSING ACCIDENTS BY PROVINCES FOR 5-YEAR PERIOD 1949 TO 1953 INCLUSIVE

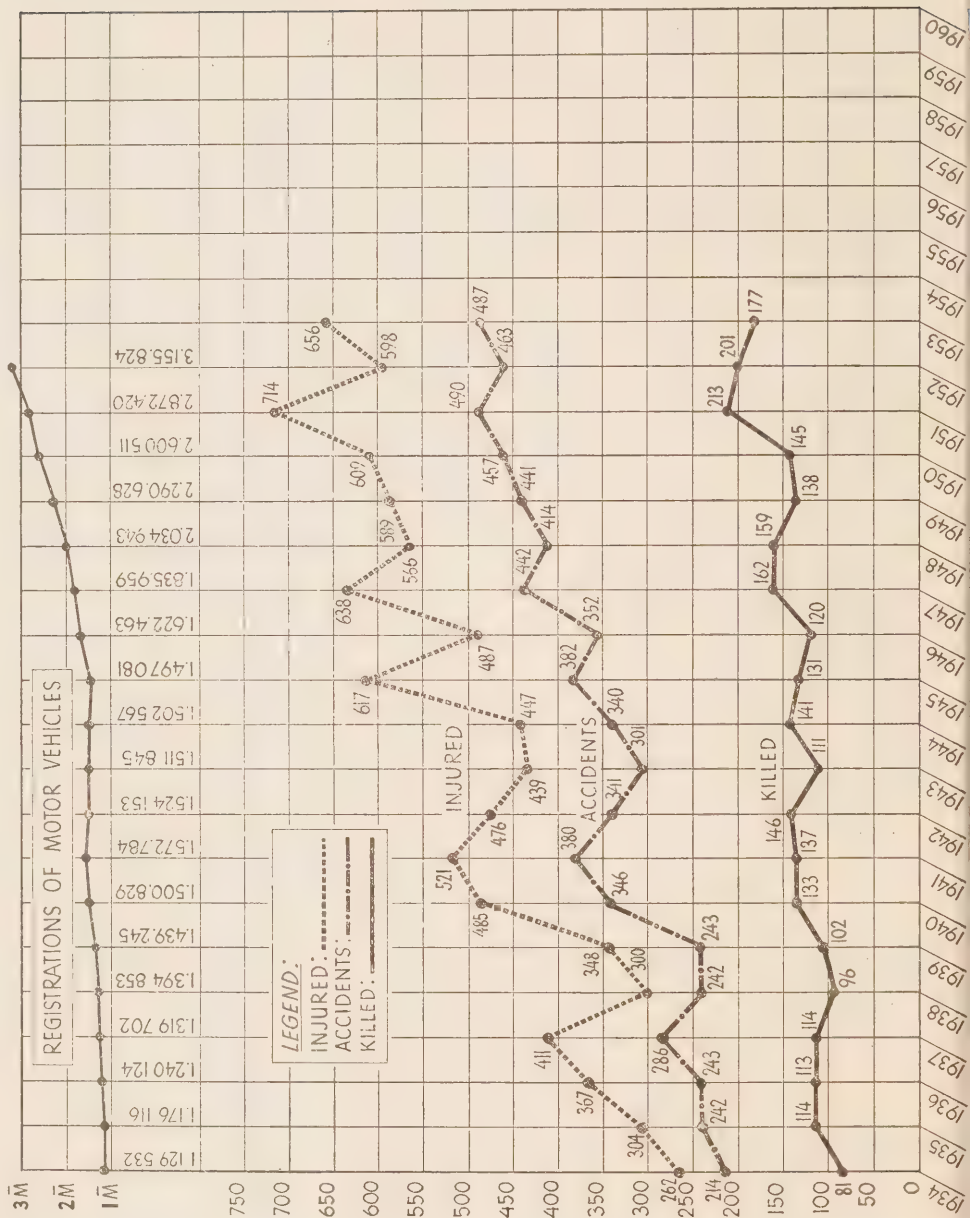
	NEW- FOUND- LAND	PRINCE EDWARD ISLAND	NOVA SCOTIA	NEW BRUNS- WICK	QUEBEC	ONTARIO	MANITOBA	SASKAT- CHEWAN	ALBERTA	BRITISH COLUMBIA	TOTALS
1949.....	1	5	19	17	78	193	29	33	37	29	441
1950.....	.....	4	17	16	81	200	34	36	47	22	457
1951.....	1	6	14	26	92	215	26	29	51	30	490
1952.....	3	2	15	17	89	192	30	37	49	29	463
1953.....	1	1	11	12	83	198	42	52	58	29	487

STATEMENT NO. 6—CONTRIBUTING FACTORS INVOLVED IN VARIOUS CLASSES OF CROSSING ACCIDENTS FOR YEAR 1953

	Accidents	Killed	Injured
<i>Motor Vehicles Struck by Train—</i>			
Daylight hours.....	166	57	215
Night hours.....	118	67	149
Totals.....	284	124	364
<i>Horse-Drawn or Other Vehicles Struck by Train—</i>			
Daylight hours.....	5	2	3
Night hours.....			
Totals.....	5	2	2
<i>Pedestrians Struck by Train—</i>			
Daylight hours.....	20	8	12
Night hours.....	4	1	3
Totals.....	24	9	15
<i>Motor Vehicles Running into Side of Train—</i>			
Daylight hours.....	59	22	68
Night hours.....	98	19	175
Totals.....	157	41	243
<i>Accidents in which Track Cars Involved—</i>			
Daylight hours.....	16	1	30
Night hours.....			
Totals.....	16	1	30
<i>Other Types of Crossing Accidents—</i>			
Daylight hours.....			
Night hours.....	*1		1
Totals.....	1		1
<i>Total Number of Accidents—</i>			
Daylight hours.....	266	90	328
Night hours.....	221	87	328
Grand Total.....	487	177	656

* Auto Truck, trying to avoid collision with train, skidded on icy road and struck switch stand causing train to be derailed.

STATEMENT No. 7—GRAPHIC CHART SHOWING NUMBER OF HIGHWAY CROSSING ACCIDENTS AND REGISTRATION OF MOTOR VEHICLES



STATEMENT NO. 8—DEFECTS ON FREIGHT CARS REPORTED BY THE BOARD'S
INSPECTORS FOR THE YEAR ENDED DECEMBER 31, 1953

Classification	Number of defects
Handholds.....	464
Sill steps.....	687
Ladders.....	177
Running boards.....	493
Safety bars, door locks, end gates and catches, latches, etc.....	2
Defects, miscellaneous safety appliances.....	56
Coupler improper height above rail.....	140
Coupler and pin.....	38
Knuckle and knuckle pin.....	17
Draft gear, yoke, springs, plates, etc.....	346
Carrier iron.....	305
Operating lever.....	169
Buffers, face plates and diaphragms, curtains, etc.....	37
Miscellaneous draft gear defects.....	13
Hand brake equipment.....	383
Foundation Brake Gear equipment.....	423
Piping, Fittings, Valves and Reservoirs.....	454
Air Brake equipment.....	435
Periodic testing, cleaning, etc.....	461
Improper piston travel.....	1,212
Miscellaneous defects to brake equipment.....	7
Center sill.....	47
Longitudinal sill.....	2
Side sill.....	30
Cross bearer.....	3
Body bolster.....	52
Miscellaneous underframe defects.....	23
Car over-due for reweighing (out of date for tare).....	205
Sheathing defects—wood or metal units.....	38
Floor and roofing defects.....	35
Doors, side, or end, hoppers, hatches and their openers, fasteners, levers, etc....	69
Miscellaneous car body defects.....	95
All wheel defects.....	110
Axles.....	3
Boxes over-due for repack or inspection.....	201
Journal box and solid bearing.....	131
All anti-friction bearing and associated part defects.....	106
Truck side frame.....	42
Center casting, side bearing, bolster, etc.....	399
Truck spring defects.....	365
Miscellaneous truck defects.....	9
Total Defects.....	8,284

NUMBER OF FREIGHT CARS INSPECTED, SHOWING CARS DEFECTIVE, NUMBER
OF DEFECTS, ALSO NUMBER OF CARS INSPECTED FOR OVERDUE FOR
WEIGHING FOR TARE AND IMPROPER PISTON TRAVEL FOR THE
YEAR ENDED DECEMBER 31, 1953

Railway	Total Cars Inspected	Total Cars Defective	Total Number of Defects	Cars inspected	
				Over- due Tare	Improper Piston Travel
Canadian National.....	40,995	2,933	4,199	4,045	14,516
Canadian Pacific.....	34,870	2,725	3,845	3,550	14,468
Miscellaneous.....	2,122	141	240	220	304
Totals.....	77,987	5,799	8,284	7,815	29,288

STATEMENT NO. 9—DEFECTS ON PASSENGER CARS REPORTED BY THE BOARD'S INSPECTORS FOR THE YEAR ENDED DECEMBER 31, 1953

Classification	Number of Defects
Handholds.....	15
Sill steps.....	13
Ladders.....	1
Safety bars, door locks, end gates and catches, latches, etc.....	28
Miscellaneous safety appliance defects.....	2
Coupler improper height above rails.....	6
Coupler and coupler pin.....	4
Knuckle and knuckle pin defects.....	5
Draft gear, yoke, springs, plates, etc.....	2
Carrier iron.....	11
Operating lever.....	9
Buffers, face plates and diaphragms, curtains, etc.....	19
Hand Brake equipment.....	24
Foundation brake gear equipment.....	16
Piping, fittings, valves and reservoirs.....	34
Air Brake equipment.....	63
Periodic testing, cleaning, etc.....	26
Improper piston travel.....	23
Train signal line apparatus.....	4
Sheathing defects—wood or metal units.....	4
Doors, fasteners, levers, etc.....	30
All wheel defects.....	2
Boxes over-due for repack or inspection.....	24
Journal box and solid bearing defects.....	12
Anti-friction bearing and associated parts.....	5
Truck side frame.....	20
Center casting, side bearing, bolster, etc.....	8
Truck spring defects.....	4
Miscellaneous truck defects.....	7
Miscellaneous air-conditioning equipment defects.....	1
Steam line.....	13
Miscellaneous car heating defects.....	1
Generator and associated parts.....	4
Batteries, battery holders.....	2
Jumper and receptacles, wiring defects, etc.....	1
Gas, holders and connections, piping fittings, gauges, emergency keys, mantles and globes, etc.....	45
Unsafe condition of seats, parcel racks, berths, etc.....	98
Drinking water and water raising systems.....	13
Emergency tools.....	19
Miscellaneous defects interior passenger train cars.....	3
Total Defects.....	621

NUMBER OF PASSENGER CARS INSPECTED, SHOWING CARS DEFECTIVE, NUMBER OF DEFECTS, ALSO NUMBER OF CARS INSPECTED FOR IMPROPER PISTON TRAVEL FOR THE YEAR ENDED DECEMBER 31, 1953

Railway	Total Cars Inspected	Total Cars Defective	Total Number of Defects	Cars Inspected
				Improper Piston Travel
Canadian National.....	3,888	299	449	1,506
Canadian Pacific.....	2,815	119	172	1,251
Miscellaneous.....	15			
Totals.....	6,718	418	621	2,757

STATEMENT NO. 10—DEFECTS ON LOCOMOTIVES REPORTED BY THE BOARD'S INSPECTORS FOR THE YEAR ENDED DECEMBER 31, 1953

Classification	Number of Defects
Inspections or tests not made as required.....	20
Safety Appliances.....	263
Brake Equipment.....	362
Driving Engine and Tender truck wheels; centers, tires and axles.....	115
Lights.....	27
Draft gear and draw gear.....	153
Whistles (Horns), Bells.....	148
Springs and spring rigging.....	349
Sanders.....	27
Cabs, cab windows, etc.....	93
Badge Plates.....	5
Fire Protective Appliances.....	86
Gauges, Steam and Air.....	77
Electric Meters (Indicating Devices).....	1
Train Communicating Signal.....	1
Running Defects—En route inspection.....	25
Flues and Tubes.....	4
Boiler Shell, steam dome, etc.....	66
Firebox sheets.....	21
Crown Bolts, Stay bolts.....	16
Water Glass.....	86
Gauge Cocks.....	27
Water Columns.....	7
Blow-Off Cocks.....	115
Plugs and Studs.....	12
Washout Plugs and Pads.....	285
Injectors, Feedwater Pumps and appurtenances.....	231
Safety Valves.....	21
Steam Pipes.....	33
Steam and Oil Valves.....	38
Throttle and Dry Pipe.....	87
Lubricators and appurtenances.....	5
Lateral Motion.....	52
Ashpan dumping gear, grate shakers and fire doors.....	5
Reversing gear.....	18
Crossheads, Guides, Pistons and Rods.....	91
Cylinders, Saddles, Steam Chests, Cylinder Cocks.....	40
Smoke Boxes, Stacks.....	2
Driving Boxes, Shoes and Wedges, and Cellars.....	77
Side Rods and Crank Pins.....	11
Valve Motion.....	28
Frames.....	19
Trucks.....	69
Truck, Tender.....	84
Frames, Tender.....	72
Tenders.....	139
Stoker.....	3
Miscellaneous—Steam Locomotives.....	2
Internal Combustion Engines.....	55
Main Generator.....	1
Circuits, Terminals, Cables.....	3
Control Equipment.....	1
Auxiliary Electrical Machinery.....	1
Fire Extinguishers, Fire Fighting Equipment.....	1
Fuel Supply.....	18
Accident Prevention—Cleanliness.....	62
Miscellaneous—Diesel Electric Locomotives.....	6
Feedwater System and appurtenances.....	1
Water Tanks.....	1
Essential Controls.....	2
Air Supply Equipment.....	1
Total Defects.....	3,671

NUMBER OF LOCOMOTIVES INSPECTED, SHOWING ENGINES DEFECTIVE AND NUMBER OF DEFECTS FOR YEAR ENDED DECEMBER 31, 1953

	Locomotives Inspected	Locomotives Defective	Total Defects
Canadian National.....	4,660	1,189	2,286
Canadian Pacific.....	3,408	743	1,187
Miscellaneous.....	514	84	198
Totals.....	8,582	2,016	3,671

STATEMENT NO. 11—STATEMENT OF BOILER EXPLOSIONS AND CROWN SHEETS DAMAGED FOR THE YEAR 1953

Crown Sheets Damaged

Railway	Date	Engine No.	Place	Remarks
Canadian National	March 25th	C.N. 5620	En route Edmonton-Calgary, Alberta.	Crown sheet damaged due to low water.
Canadian National	June 2nd	C.N. 5061	Joffre, Quebec.	Crown sheet damaged due to low water.
Canadian National	December 26th	C.N. 2701	Pacific, British Columbia	Crown sheet damaged due to low water
Canadian Pacific	February 4th	C.P. 2402	St. Luc R.H., Montreal, Quebec.	Crown sheet damaged due to low water.
Canadian Pacific	June 18th	C.P. 672	En route Altawan Subdivision, mileage 18, Alberta	Crown sheet damaged due to low water.
Canadian Pacific	December 11th	C.P. 2514	Sudbury, Ontario	Crown sheet damaged due to low water.
Northern Alberta	July 21	C.P. 5156	En route Smith-McLennan, Alberta.	Crown sheet damaged due to low water.

SUMMARIES

Boiler Explosions
Nil

Crown Sheets Damaged

Canadian National	3
Canadian Pacific	3
Northern Alberta	1
Total	<u>7</u>

STATEMENT NO. 12—SUMMARY OF REPORTS ON FIRES IN FOREST SECTIONS ORIGINATING WITHIN 300 FEET OF TRACK
ALONG RAILWAY LINES UNDER THE JURISDICTION OF THE BOARD, SEASON OF 1953

	Canadian National (Atlantic Region) (a)	Canadian National (Central Region) (b)	Canadian National (Western Region) (c)	Canadian Pacific (Eastern Region) (d)	Canadian Pacific (Prairie Region) (e)	Canadian Pacific (Pacific Region) (f)	Algonia Central and Hudson Bay	Northern Alberta	Miscel- laneous (g)	Totals
<i>Fires of Railway Origin— Number by Causes—</i>										
Locomotive, Class A fires.....	20	36	5	26	8	35	1	1	.....	132
Locomotive, Class B fires.....	13	47	23	44	21	54	.....	9	4	215
Locomotive, Class C fires.....	1	11	3	5	1	1	.....	6	1	29
Employees, Class A fires.....	3	3	.....	1	.....	1	2	.....	.....	10
Employees, Class B fires.....	3	11	1	20	1	1	5	.....	2	43
Employees, Class C fires.....	.....	2	2	5	.....	1	11	.....	1	11
Fusees, Class A fires.....	6	5	.....	1	.....	1	.....	.....	.....	13
Fusees, Class B fires.....	.....	1	1	.....	1	.....	.....	.....	.....	3
Fusees, Class C fires.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Burning smoking materials from trains, Class A fires.....	2	4	.....	.....	.....	1	3	.....	.....	10
Burning smoking materials from trains, Class B fires.....	.....	1	1	.....	.....	.....	2	.....	.....	3
Burning smoking materials from trains, Class C fires.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
Total, Class A fires.....	31	48	5	28	8	38	6	1	.....	165
Total, Class B fires.....	16	59	26	64	22	55	7	9	6	264
Total, Class C fires.....	1	13	5	10	1	2	.....	6	3	41
Total.....	48	120	36	102	31	95	13	16	9	470
<i>Areas burned (acres)—</i>										
Young forest growth.....	33	7,588	196	339	22	21	12	6,998	1,975	17,184
Merchantable timber.....	6	217	24	51	.....	10	.....	1,683	151	2,142
Slashing or old burn.....	1	89	.....	13	166	.....	2	141	1	413
Other classes of land.....	124	1,083	672	329	27	136	11	2	5	2,389
Total.....	164	8,977	892	732	215	167	25	8,824	2,132	22,128
<i>Value of Property Destroyed—</i>										
Young forest growth.....	\$ 82	\$ 8,703	\$ 1,366	\$ 1,696	\$ 2	\$ 218	\$	\$ 69,433	\$ 3,950	\$ 85,450
Standing timber.....	6	1,471	230	433	.....	370	.....	54,680	255	57,445
Forest products.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Other property.....	915	3,228	1,970	5,190	1,350	.....	.....	.....	.....	12,653
Total.....	1,003	13,402	3,566	7,319	1,352	588	.....	124,113	4,205	155,548

STATEMENT NO. 12—SUMMARY OF REPORTS ON FIRES IN FOREST SECTIONS ORIGINATING WITHIN 300 FEET OF TRACK
ALONG RAILWAY LINES UNDER THE JURISDICTION OF THE BOARD, SEASON OF 1953—*Concluded*

	Canadian National (Atlantic Region) (a)	Canadian National (Central Region) (b)	Canadian National (Western Region) (c)	Canadian Pacific (Eastern Region) (d)	Canadian Pacific (Prairie Region) (e)	Canadian Pacific (Pacific Region) (f)	Algonia Central and Hudson Bay	Northern Alberta	Miscel- laneous (g)	Totals
<i>Known Causes Other than Railway—</i>										
Campers and Travellers, Class A.....	4	8	4	1		1			2	20
Campers and Travellers, Class B.....	1	6	2	4		2				15
Campers and Travellers, Class C.....		3	1							4
Settlers, Class A fires.....	3	3		1		1				8
Settlers, Class B fires.....		5	1							6
Settlers, Class C fires.....	1	1	3	1		2				8
Other Known Causes, Class A fires.....	3	1	2	3		2	1		1	13
Other Known Causes, Class B fires.....	1	2								3
Other Known Causes, Class C fires.....	5	9	7	8		5	1		2	28
Total, Class A.....	7	10	4						1	36
Total, Class B.....	1	10	2							13
Total, Class C.....										
Total.....	13	29	13	10		8	1		3	77
<i>Areas burned (acres)—</i>										
Young forest growth.....	1	99	21	4		7				132
Merchantable timber.....		2	10							12
Slashing or old burn.....	1	123	20			1				145
Other classes of land.....	30	127	42	11		4			1	218
Total.....	32	351	93	15		12	3		1	507
<i>Value of Property Destroyed—</i>										
Young forest growth.....	\$ 5	\$ 249	\$ 41	\$	\$	\$ 140	\$	\$	\$	\$ 435
Standing timber.....		15								15
Forest products.....		683	15,500	63						16,246
Other property.....										
Total.....	5	947	15,541	63		140				16,696
<i>Fires of Unknown Origin—</i>										
Number—										
Class A.....	9	2	2	1						14
Class B.....	10	4	1	5	1	4				25
Class C.....										
Total.....	19	6	3	6	1	4				39

Areas burned (acres)—

[illegible]

(a) Includes Province of Newfoundland.

(b) Includes Dominion Atlantic Railway.

(c) Includes Esquimalt and Nanaimo Railway.

(d) Includes the following lines:—Cumberland Railway and Coal Co.; Nipissing Central; Quebec North Shore and Labrador; Sydney and Louisburg; White Pass and Yukon Railway.

NOTE.—No fires were reported during 1953 as originating within 300 feet of track in forest sections along the following lines:—Great Northern; Quebec Central; Maritime Coal, Railway and Power Co.; Maine Central; Spokane International.

Class A fires are those which cover an area less than one-fourth acre, regardless of amount of damage.

Class B fires are those which cover an area of one-fourth acre to ten acres.

Class C fires are those which cover an area over ten acres.

APPENDIX "F"

REPORT OF THE BUREAU OF TRANSPORTATION ECONOMICS
FOR THE YEAR ENDED DECEMBER 31, 1953

Submitted herewith is the Annual Report of the Bureau of Transportation Economics for the year ended December 31, 1953. The major part of the Bureau's work was in the fields of rail and air transportation involving studies, reports and analyses for the Board of Transport Commissioners, the Air Transport Board, and other government departments.

Railways

The Third annual railway freight waybill study conducted by the Bureau in 1952 was completed and the summary of results published in June, 1953. The sample consisted of 23,972 waybills, covering 25,957 carload shipments of traffic between Canadian stations terminating on the test dates, January 9, April 9, July 9 and October 8. In the published report traffic was analysed by class and type of rate and by commodity groups for each originating rate territory. Information published included number of carloads, revenue, weight, ton-miles, average revenue per ton-mile, average haul per ton, car-miles and average revenue per car-mile.

During 1953 the fourth waybill analysis was carried out on the same basis as in previous years. Results of this analysis will be published during 1954.

The class rate equalization case involved the most intensive use of the waybill data by the Bureau during 1953. The various proposed rate scales were subjected to tests for their effect on railway revenues by means of the waybill data. Basic tabulations of class rate traffic in the waybill sample were prepared and made available to those participating in the case. A considerable amount of more detailed information was also prepared in connection with the equalization case. Preliminary analyses were also made in connection with the principal commodity rates scheduled to be equalized.

The traffic survey of coastal shipping services in Nova Scotia begun in 1952 was concluded during the year and a final report made to the Canadian Maritime Commission.

In connection with Order-in-Council P.C. 1953-52 which directed the Board to make an investigation of the grade-crossing problem, the Bureau with the co-operation of the railways prepared a survey of all crossings in Canada on railways under the Board's jurisdiction. Details reported included jurisdiction of road, type of surface, type of protection, number of railway tracks, number of accidents and number killed and injured in such accidents during the period 1946-1952. Analyses of this survey information were made to reveal the potentially more dangerous types of crossings.

Work in co-operation with the Dominion Bureau of Statistics and the Railway Association of Canada on a new commodity classification for reporting railway traffic was completed in 1953 and approved by the Board for use beginning January 1, 1954. The former classification had been in use without substantial modification for over twenty years and did not reflect the numerous changes in important classes of traffic that had occurred in the intervening period.

Preliminary estimates of Canadian Railways for 1953 show a less favourable operating ratio than for 1952, and a drop from the all-time high in revenue freight ton-miles carried in the same year. Operating revenues of Canadian Railways increased 2.9% to \$1,206,640,000 from \$1,172,158,665 in 1952. Operating expenses increased by 4.4% to \$1,103,387,000 from \$1,057,186,304 in 1951. The dollar increase in expenses exceeded that of revenues and resulted in a decline of

net operating revenue to \$103,253,000 from \$114,972,361 in 1952. Freight rates were increased by 9% on January 1 and by an additional 7% on March 16, but the yield from these increases was reduced by declines in the volume of traffic. Expenses in 1953 include approximately \$5,000,000 in 1952 back-time pay resulting from wage agreement made early in the year. Revenue freight ton-miles declined 3.5% and revenue passenger miles dropped 4.0% from 1952. A summary of railway statistics from 1939 to 1953 is tabulated below:

Year	Operating Revenues	Operating Expenses	Net Operating Revenue	Operating Ratio	Revenue Freight Ton Miles	Revenue Passenger Miles
	\$	\$	\$		(000)	(000)
1939.....	367,179,095	304,373,285	62,805,810	82.9	31,464,991	1,751,973
1940.....	429,142,659	335,287,503	93,855,156	78.1	37,898,196	2,176,468
1941.....	538,291,947	403,733,542	134,558,405	75.0	49,982,478	3,205,542
1942.....	663,610,570	485,783,584	177,826,986	73.2	56,153,953	4,989,296
1943.....	778,914,565	560,597,204	218,317,361	72.0	63,915,074	6,525,064
1944.....	796,636,786	634,774,021	161,862,765	79.7	65,928,078	6,873,188
1945.....	774,971,360	631,497,562	143,473,798	81.5	63,349,095	6,380,155
1946.....	718,501,764	623,529,472	94,972,292	86.8	55,310,308	4,648,558
1947.....	785,177,920	690,281,047	94,896,873	88.0	60,143,035	3,732,777
1948.....	875,832,290	808,126,455	67,705,835	92.3	59,080,323	3,477,273
1949.....	894,397,264	831,456,446	62,940,818	93.0	56,338,231	3,193,174
1950.....	958,985,751	833,726,562	125,259,189	86.9	55,537,900	2,816,154
1951.....	1,088,583,789	977,577,062	111,006,727	89.8	64,300,418	3,110,241
1952.....	1,172,158,665	1,057,186,304	114,972,361	90.2	68,430,417	3,151,261
1953 (Est.).....	1,206,640,000	1,103,387,000	103,253,000	91.4	66,057,000	3,023,204

Airways

Field audits and survey reports were prepared for 33 air carriers located in Northern Ontario, Manitoba, Saskatchewan, Alberta and the Yukon; this represented completion of a three-year cycle under which Southern Ontario and Quebec were covered in 1952 and British Columbia and the Maritimes in 1951. Annual reviews were made of the operating and financial reports of 120 air carriers and comments were prepared on 98 applications for licences, transfers of ownership, and airport expenditures.

Special analyses and studies were conducted in the fields of air cargo, passenger activity at airports, reduced fare off-hour services, budworm spraying, aerial pest control by farmer operators, collection of airport statistics, flying club finances, and bilateral air transport agreements. Accounting studies and rulings were made on such items as goodwill, incidental revenues, retention of records and stores control.

Recurrent reports on Canadian air carriers were prepared for the International Civil Aviation Organization; data were also provided on North Atlantic crossings and in connection with ocean weather stations. The Airline Traffic Survey was conducted during March and September in conjunction with the United States Civil Aeronautics Board, and studies were undertaken involving revisions in procedure which would place the survey on an uplift basis in lieu of ticket sales.

The regular monthly and annual reports of licensed air carriers were processed and preliminary estimates have been prepared for the calendar year 1953. Total operating revenues for all Canadian domestic and international air carriers exceeded \$100,000,000 reflecting an increase of 14.65% over 1952. Operating expenses increased at a faster rate of 19.48%, resulting in a further narrowing of the profit margin, i.e. net operating revenues were \$158,202 in 1953 as contrasted with \$3,790,312 in 1952 and \$7,269,303 in 1951. The decline in net

operating revenue was primarily associated with higher operating expenses since traffic continued to show a steady growth; revenue passengers increased by 16·71% to 2,127,526, pounds of mail increased by 10·21% to nearly 17,000,000, and pounds of revenue goods increased by 32·53% to 165,000,000. The results of combined domestic and international operations are tabulated below for the calendar years 1947 to 1953.

Year	Operating Revenues	Operating Expenses	Net Operating Revenues	Revenue Passengers	Pounds of Mail	Tons of Revenue Goods
	\$	\$	\$			
1947.....	32,317,385	34,666,250	Dr. 2,348,865	709,375	6,060,954	15,243
1948.....	44,573,440	47,155,842	Dr. 2,582,402	913,228	9,123,790	16,348
1949.....	50,276,053	53,922,938	Dr. 3,646,885	1,035,421	12,391,331	15,946
1950.....	57,408,418	57,559,037	Dr. 150,619	1,270,492	13,372,862	20,568
1951.....	77,075,210	69,805,907	7,269,303	1,585,888	14,279,502	41,035
1952.....	90,572,936	86,782,624	3,790,312	1,822,917	15,390,349	62,519
1953 (Est.).....	103,841,911	103,683,709	158,202	2,127,526	16,961,704	82,856

G. A. SCOTT,
Director.

APPENDIX "G"

GENERAL ORDER No. 778

In the matter of cleaning of stations and disinfecting of passenger cars:

File No. 1708-3

MONDAY, the 5th day of January, A.D. 1953.

Hon. Mr. Justice JOHN D. KEARNEY, *Chief Commissioner.*

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

It is ordered that every railway company subject to the jurisdiction of the Board be, and it is hereby, directed and required:

(1) To maintain all its passenger stations, waiting rooms, toilet and lavatory facilities, in a clean and sanitary condition properly ventilated, heated and lighted; to disinfect said toilet and lavatory facilities not less frequently than once per week.

(2) To maintain all its passenger carrying cars, including the toilet and lavatory facilities, smoking and other compartments of such cars, in a clean and sanitary condition, properly ventilated, heated and lighted; to disinfect said toilet and lavatory facilities not less frequently than once per week.

(3) To adopt a By-law (if no such By-law has already been adopted)' under Section 290 of the Railway Act, prohibiting spitting in passenger stations, waiting rooms, toilet and lavatory facilities, or other premises of the company and in or upon the platforms of cars in which passengers may travel, except in receptacles suitable for the purpose, and to provide a penalty for breach thereof; and to post up and maintain in a conspicuous place in its passenger stations and in such places in the cars in which passengers may travel, where deemed necessary, a notice of such By-law and the penalty for breach thereof; such notices in the Province of Quebec to be printed in French and English.

(4) To provide and maintain cuspidors and ash receptacles in such places in its passenger stations and passenger cars, where deemed necessary; and to have such cuspidors emptied and washed clean whenever necessary, but at least once in every forty-eight hours.

(5) To properly clean all passenger equipment which is regularly in service, at least once every thirty days.

(6) To take all necessary precautions to see that cases of known contagious diseases are reported immediately to the responsible railway officials, and to clean thoroughly and disinfect all cars known or suspected to have carried any passenger suffering from contagious disease.

(7) (a) To transport tuberculosis patients in the "closed space" upon railway cars, e.g., compartment.

(b) To refuse to accept as a passenger a patient suffering from tuberculosis unless such patient shows satisfactory evidence that he has been duly instructed by appropriate medical authorities regarding the usual precautions to prevent dissemination of the disease, including the collection and disposal of sputum, and is provided with:

(i) a sputum cup made of impervious material and so constructed as to admit of being tightly closed when not in use;

- (ii) a sufficient supply of gauze, paper or similar articles of proper size to cover the mouth and nose while coughing or sneezing;
 - (iii) a heavy bag or other type of container for receiving the soiled gauze, paper or similar articles; and the patient undertakes to arrange for the destruction of the above articles by burning or disinfection.
- (8) To ensure, where a tuberculosis patient is accepted as a passenger, that:
- (a) all meals are supplied in the patient's "closed" accommodation, and that all dishes, cutlery, etc., so used, are kept in the accommodation until the completion of the trip;
 - (b) all such dishes, cutlery, etc., are collected by the railway attendant at the completion of the trip, and are kept segregated from the other dishes until they are properly cleansed and subjected to live steam sterilization before being put into use again;
 - (c) all bed clothing, including blankets and linen, are removed and laundered before again being used;
 - (d) accommodation quarters are damp cleaned with a detergent solution containing a disinfectant before re-occupancy;
 - (e) wherever practicable, areas of the duct system of air conditioning units on the railway car used, are thoroughly cleaned after occupancy, but fumigation of such air conditioning systems is not considered necessary.

And it is further ordered that General Order No. 35 dated May 7, 1909, and Circular No. 171, dated September 25, 1918, be, and they are hereby, rescinded.

JOHN D. KEARNEY,

Chief Commissioner.

GENERAL ORDER No. 779

In the matter of Regulations for the Transportation of Explosives and Other Dangerous Articles in Rail Freight and Rail Express Service including Specifications for Shipping Containers:

File No. 1717-B

FRIDAY, the 9th day of January, A.D. 1953.

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Upon reading the submissions filed—

It is ordered

1. That, effective June 1, 1953, the Regulations for the Transportation of Explosives and Other Dangerous Articles by Rail Freight and Rail Express Service including Specifications for Shipping Containers on file with the Board under file No. 1717-B marked "C" and certified by the Secretary of the Board, be, and they are hereby, authorized for the observance by railway and express companies subject to the jurisdiction of the Board which accept explosives and other dangerous articles for carriage.

2. That, upon the coming into force of the said regulations, General Orders No. 678 dated December 3, 1945, No. 696 dated December 27, 1946, No. 718 dated July 16, 1948, No. 722 dated January 21, 1949, No. 724 dated April 29, 1949, No. 727 dated August 12, 1949, No. 738 dated February 8, 1950, No. 746 dated October 6, 1950, No. 756 dated May 11, 1951, No. 757 dated May 11, 1951, No. 758 dated May 31, 1951, No. 761 dated August 20, 1951, No. 762 dated August 20, 1951, No. 767 dated December 3, 1951 and No. 777 dated March 27, 1952, be, and they are hereby, rescinded.

A. SYLVESTRE,

Deputy Chief Commissioner.

GENERAL ORDER No. 783

In the matter of regulations governing the handling of vestibule doors, platforms, curtains, guard rails, side and end gates, tail gates, chains, and bars on equipment handled on passenger and mixed trains, and General Order No. 600, dated January 7, 1941:

File No. 22338.

FRIDAY, the 9th day of January, A.D. 1953.

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Upon reading the submissions filed—

It is ordered that General Order No. 600, dated January 7, 1941, be, and it is hereby, amended by striking out the words "operating a railway by steam power" in paragraph numbered 1 of the operative part of the said Order.

A. SYLVESTRE,

Deputy Chief Commissioner.

GENERAL ORDER No. 784

In the matter of publication of reduced classification ratings to govern freight tariffs, pending regular amendments to the Canadian Freight Classification:

File No. 33365-156.

FRIDAY, the 1st day of May, A.D. 1953.

Hon. Mr. Justice JOHN D. KEARNEY, *Chief Commissioner.*

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Whereas Section 322 of the Railway Act empowers the Board to make regulations respecting classification of goods:

And whereas regular amendments to the Classification, as governed by General Order No. 695, dated November 14, 1946, may incur unavoidable delay before becoming effective and thereby deprive interested shippers of the immediate benefits of reduced ratings therein proposed:

And whereas railway companies as represented by the Canadian Freight Association have proposed to institute reduced classification ratings by publication in a specially designated tariff, pending publication in regularly filed amendments to the Classification.

It is ordered

1. That any amendments to be made to the Canadian Freight Classification shall be prepared and submitted, at least semi-annually, in accordance with General Order No. 695.

2. That reductions in classification ratings may be established by tariff filed on not less than 30 days' notice.

3. That reduced classification ratings shall, unless suspended or disallowed by the Board, be maintained in effect until such ratings have been specifically established in the Classification, whereupon the reduced ratings established by tariff shall be cancelled concurrently with the effective date of the coming into force of like ratings in the Classification.

4. That tariff of reduced classification ratings, and any amendments thereto, shall be forwarded concurrently with the filing thereof with the Board, to all persons listed in General Order No. 695 and to all persons to whom the Canadian Freight Classification is furnished.

5. That tariff of reduced classification ratings shall be designated on the title page "Commodity Rates" and shall be additionally described as "Reduced Classification ratings governing tariffs which are subject to the Canadian Freight Classification".

JOHN D. KEARNEY,

Chief Commissioner.

GENERAL ORDER No. 785

In the matter of Rules for Protection of Impassable or Slow Track:

File No. 4135-25.

THURSDAY, the 14th day of May, A.D. 1953.

HUGH WARDROPE, *Asst. Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

It is ordered that the following Rules for Protection of Impassable or Slow Track (which are the same as the Rules with similar numbers in the Uniform Code of Operating Rules approved by General Order No. 750) be, and they are hereby, approved and prescribed for the observance of all railway companies subject to the jurisdiction of the Board, except railway companies which the Board by order exempts from the application of this Order:

- "40. (a) Before undertaking any work which may render the main track unsafe for movements at normal speed, or if rendered unsafe from any cause, trackmen, bridgemen, or other employees must provide protection by sending out a flagman with flagman's signals in each direction at least 2,000 yards from the defective or working point.
- (b) After going out the required distance, flagman must take up a position where there will be a clear view of him from an approaching train of, if possible, 500 yards, first placing torpedoes not more than 100 nor less than 50 yards apart to cause two explosions at least 200 yards beyond such position.
- (c) Flagman must not return until recalled or relieved.
- (d) If necessary to go beyond the required distance, flagman will leave the torpedoes at the required distance, but under such conditions must also place torpedoes at the point at which an approaching train is flagged.
- (e) On the approach of a train flagman must display stop signals, using lighted fuses at night or in obscure weather.
- (f) Trains stopped by a flagman will be governed by his instructions, and on reaching the defective or working point will there be governed by instructions of the foreman in charge.
- (g) Flagmen must each be equipped for day time with
 A red flag on a staff,
 At least eight torpedoes and
 Five red fuses; and
 For night time and when weather or other conditions obscure day signals
 A red light,
 A white light,
 A supply of matches,
 At least eight torpedoes and
 Five red fuses.

41. On subdivisions or portions thereof specified in the timetable or special instructions, rule 40 may be modified as follows:

- (a) By day place a red flag and, in addition, by night a red light between the rails 200 yards in each direction from the defective or working point, and place torpedoes on each rail to cause one explosion 200 yards beyond the red signals, also:
- (b) By day place a yellow over red flag and, in addition, by night a yellow light and a red light at least 2000 yards in each direction from the defective or working point on the same side of the track as the engineman of an approaching train, and place torpedoes not more than 100 nor less than 50 yards apart to cause two explosions 200 yards beyond these signals.
- (c) Trains approaching the signals prescribed by clause (b) must stop, replace the torpedoes and proceed to the red signal prescribed by clause (a) and there be governed by instructions of the foreman in charge, and must not proceed until the red signal has been removed by the foreman.
- (d) When weather or other conditions obscure day signals night signals must be used in addition.

42. When the main track is impassable, and after train order protection has been provided and the foreman so advised, rules 40 and 41 may be modified as follows:

- (a) By day place a red flag and, in addition, by night a red light between the rails 200 yards in each direction from the defective or working point, also:
- (b) By day place a yellow flag and, in addition, by night a yellow light at least 2000 yards in each direction from the defective or working point on the same side of the track as the engineman of an approaching train, where there is a clear view of the signal of, if possible, 500 yards.
- (c) Trains stopped by the red signal prescribed by clause (a) must be governed by instructions of the foreman in charge, and must not proceed until the red signal has been removed by the foreman.
- (d) When weather or other conditions obscure day signals night signals must be used in addition.

43. When the nature of the defect does not require stop to be made, and after speed restriction has been placed by train order and the foreman so advised, rules 40 and 41 may be modified as follows:

- (a) By day place a yellow flag and, in addition, by night a yellow light at least 2000 yards in each direction from the defective point on the same side of the track as the engineman of an approaching train, also:
- (b) By day place a green flag and, in addition, by night a green light in each direction immediately beyond the defective point.
- (c) Trains must reduce speed to comply with requirements of the train order, and must not increase speed until the entire train has passed the green signal.
- (d) When weather or other conditions obscure day signals night signals must be used in addition.

44. On subdivisions or portions thereof specified in the timetable or special instructions, when the main track is found to be unsafe for movements at normal speed but safe for speed of ten miles per hour or more, rule 41 may be modified as follows:

- (a) By day place a yellow flag and, in addition, by night a yellow light 200 yards in each direction from the defective point on the same side of the track as the engineman of an approaching train, also:
- (b) By day place a yellow over red flag and, in addition, by night a yellow light and a red light at least 2000 yards in each direction from the defective point on the same side of the track as the engineman of an approaching train, and place torpedoes not more than 100 nor less than 50 yards apart to cause two explosions 200 yards beyond these signals; also
- (c) By day place a green flag and, in addition, by night a green light in each direction immediately beyond the defective point.
- (d) Trains must stop and replace torpedoes on each side of the defective point, and must reduce speed to ten miles per hour before passing the yellow signal and must not increase speed until the entire train has passed the green signal.
- (e) When weather or other conditions obscure day signals night signals must be used in addition.
- (f) The foreman must report the condition to the train dispatcher as soon as practicable, and when advised that speed restriction has been placed by train order must mark the defective point as prescribed by rule 43.

45. In providing protection each main track must be regarded as a track upon which trains may run in either direction. Where two main tracks are on the same roadbed, flags and lights required to be placed on the same side of the track as the engineman of an approaching train under rules 41-44 inclusive must be placed to the outside of the track affected and not between the two main tracks. Under this rule, when the two main tracks on the same roadbed are for single track operation their location will be shown in the timetable.

46. When flags or lights are placed as set forth in rules 41-45 inclusive they will be mounted on staffs and elevated so as to be clearly in view of the engineman of an approaching train.

47. Where the use of torpedoes is required, duplicates should be placed on the opposite rail to explode simultaneously.

48. Torpedoes must not be placed near stations nor on public crossings at grade.

49. A sign bearing figures indicating permissible speeds, or the word SLOW, placed at the side of the track will indicate a permanent slow order; its location and speeds permitted will be specified in the timetable or special instructions."

It is further ordered that

1. Except where modification as prescribed by rules 42 and 43 has been provided, rule 40 of this Order shall apply as follows:

(a) On double track;

(b) on three or more tracks;

(c) on main line Subdivisions in mountain territory and

(d) on all tracks where there are nine or more trains operating between 6.00 a.m., and 6.00 p.m., or where schedule freight train speeds are in excess of 40 miles per hour or schedule passenger train speeds are in excess of 50 miles per hour.

2. Where flags are required to be displayed under Rules 41, 42, 43 and 44 of this Order, such flags shall be of a serviceable type of minimum dimensions of 22 by 28 inches.

3. Where conditions require display of night signals lights of the prescribed colour and type, such as oil burning vessels, for example a trainman's lantern, shall be used.

4. General Order No. 690, dated August 13, 1946, and General Order No. 697, dated January 4, 1947, be, and they are hereby rescinded.

HUGH WARDROPE,

Assistant Chief Commissioner.

GENERAL ORDER No. 786

In the matter of the application of The Railway Association of Canada for approval of Supplement No. 1 to Regulations for the Transportation of Explosives and Other Dangerous Articles in Rail Freight and Rail Express Service:

File No. 1717-B.

FRIDAY, the 17th day of July, A.D. 1953.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

Upon reading the submissions filed—

It is ordered

1. That the said Supplement No. 1 to Regulations for the Transportation of Explosives and Other Dangerous Articles in Rail Freight and Rail Express Service, on file with the Board under file No. 1717-B, be, and it is hereby, authorized for the observance of the railway companies subject to the jurisdiction of the Board which accept explosives and other dangerous articles for carriage.

2. That General Orders No. 719, dated November 20, 1948, and No. 780, dated December 11, 1952, be, and they are hereby, rescinded.

3. That this General Order No. 786 shall come into force on the 15th day of September, 1953.

HUGH WARDROPE,
Assistant Chief Commissioner.

GENERAL ORDER No. 787

In the matter of rules covering the preparation of accounts to apply to joint projects undertaken under Order of the Board;

And in the matter of General Order No. 754 dated May 7th, 1951:

File No. 11026-74.

FRIDAY, the 3rd day of July, A.D. 1953.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

Upon reading the submissions filed—

It is ordered that General Order No. 754, dated May 7th, 1951, be, and it is hereby amended by striking out the figures "3½ per cent" where they appear under the headings "Transportation Accounts" and "Construction and Maintenance Accounts" in sub-paragraph (b) dealing with surcharges in the said Order and substituting therefor the figures "5 per cent".

HUGH WARDROPE,

Assistant Chief Commissioner.

GENERAL ORDER No. 788

In the matter of General Order No. 41 which approved two forms of bill of lading for use in Canada:

File No. 3678-82.

FRIDAY, the 24th day of July, A.D. 1953.

HUGH WARDROPE, *Asst. Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

It is hereby ordered that General Order No. 41 be, and it is hereby, amended by deleting the last two paragraphs thereof beginning with the words, "And it is further ordered that the size of the said bills of lading" and ending with the words, "subject to the legislative authority of the Parliament of Canada" and substituting therefor the following paragraph:

"And it is further ordered that the forms hereby approved shall be the only forms of bills of lading to be used by all railway companies subject to the legislative authority of the Parliament of Canada except such forms as may hereafter be prescribed or approved by order of the Board".

HUGH WARDROPE,

Assistant Chief Commissioner.

GENERAL ORDER No. 789

In the matter of the application of The Railway Association of Canada, for an Order amending General Order No. 755, dated May 19, 1951:

File No. 15382.

FRIDAY, the 7th day of August, A.D. 1953.

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

Upon reading the submissions filed—

It is ordered that General Order No. 755, dated May 19, 1951, be, and it is hereby, amended by striking out the words "upon whose line the protection is installed and shall be tested at frequent intervals. The interval between such tests shall not exceed a period of twenty-four hours, except on week-ends and holidays, when the interval may be extended up to seventy-two hours, and the method of test shall be such as will indicate" in the first two sentences of the operative part of the said Order and substituting therefor the words "upon whose line the protection is installed, and shall be tested at least once each day, except on week-ends and holidays, when not more than two days may elapse on which no test is made. The method of test shall be such as will indicate".

A. SYLVESTRE,

Deputy Chief Commissioner.

GENERAL ORDER No. 790

In the matter of the Uniform Code of Operating Rules effective August 26, 1951, and approved by General Order No. 750, dated April 7, 1951:

And in the matter of General Orders No. 42, dated July 12, 1909, No. 79, dated July 20, 1911, No. 108, dated August 11, 1913, No. 255, dated November 20, 1918, No. 322, dated December 10, 1920, No. 336, dated April 2, 1921 and No. 578, dated September 29, 1938:

File No. 43757.

WEDNESDAY, the 14th day of October, A.D. 1953.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Upon reading the submissions filed—

It is ordered that General Orders No. 42, dated July 12, 1909, No. 79, dated July 20, 1911, No. 108, dated August 11, 1913, No. 255, dated November 20, 1918, No. 322, dated December 10, 1920, No. 336, dated April 2, 1921 and No. 578, dated September 29, 1938, be, and they are hereby, rescinded.

HUGH WARDROPE,
Assistant Chief Commissioner,

OTTAWA, April 18, 1953.

AMENDMENT No. 2 TO CIRCULAR No. 272

File No. 45464.1—Reduction in Freight Rates between Points in Eastern Canada and Points in Western Canada, Pursuant to Section 18, Chapter 22, 15-16 George VI.

The Board having concluded that the aggregate cost of maintaining the stipulated trackage of the Canadian Pacific Railway Company and of the Canadian National Railways will continue to exceed the sum of seven million dollars annually:

Circular No. 272, dated April 16, 1952, as amended, is hereby further amended by cancelling therefrom paragraph numbered 3, on page 3, and substituting the following in lieu thereof:

“3. That subject to paragraphs numbered 1 and 2 hereof, carload and less than carload freight rates which but for the provisions of this circular, would be in effect, shall be reduced effective May 1st, 1953, by the aggregate of the following:

- i. 3.5 per cent
- ii. 9.5 cents per 100 pounds.”

By Order of the Board,

E. R. HOPKINS,

Secretary.

OTTAWA, June 16th, 1953.

CIRCULAR No. 275

File No. 24942—Reduction of Passenger Train Services.

In all cases of reduction in passenger train services and to provide sufficient time for investigation and consideration of submissions of all parties, the Board directs as follows:

That all railway companies subject to the jurisdiction of the Board, in addition to the announcements and the advertising now done by the railway companies, shall post at all ticket offices and stations, twenty days prior to any reduction or other change in passenger train service, a notice reading:

“Change of time will be made For particulars apply to Ticket Agent.”

Co-incident with the posting of this notice a Circular giving an outline of the change shall be placed in the hands of agents for the information of the public and a copy shall be forwarded to the Director of Operation of the Board in Ottawa.

Circular No. 139 dated January 13th, 1915, and Circular No. 208 dated December 3rd, 1925, are hereby rescinded.

By Order of the Board,

C. W. RUMP,

Acting Secretary, B.T.C.





Canada Transport Com
missioners for Canada
DOMINION OF CANADA

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FIFTIETH REPORT

of

THE BOARD OF TRANSPORT COMMISSIONERS FOR CANADA

FOR THE YEAR ENDED

DECEMBER 31

1954



EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1955

DOMINION OF CANADA

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THE BOARD OF TRANSPORT COMMISSIONERS
FOR CANADA

Hon. Justice JOHN D. KEARNEY, *Chief Commissioner*

W. H. M. WARDROPE, *Assistant Chief Commissioner*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner*

F. M. MACPHERSON, *Commissioner*

H. B. Chase, C.B.E., *Commissioner*

O. A. MATTHEWS, *Commissioner*.

E. R. HOPKINS,
Secretary.

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APPLICATIONS SUBMITTED TO THE BOARD

During the year ended December 31, 1954, 2229 applications were submitted to the Board.

TECHNICAL SERVICES

Besides its Administrative and Legal Branches, the Board is composed of four main technical departments, namely:—the Traffic, the Engineering, the Operating and the Bureau of Transportation Economics. Summaries of the activities of these departments, during the year 1954, are contained in the Appendices to this report.

PUBLIC SITTINGS OF THE BOARD

During the year covered by the period from January 1, 1954, to December 31, 1954, the Board held 31 public sittings at which 37 cases were heard. The number of public sittings held in the various provinces was as follows:

Province	Number
Ontario.....	25
Quebec.....	4
Manitoba.....	0
Saskatchewan.....	0
Alberta.....	0
British Columbia.....	2
Nova Scotia.....	0
New Brunswick.....	0
Prince Edward Island.....	0
Newfoundland.....	0
Total.....	31

LIST OF APPLICATIONS HEARD AT PUBLIC HEARINGS OF THE BOARD FOR THE YEAR ENDED DECEMBER 31, 1954.

1. In the matter of the application of the Canadian Freight Association for approval of an Agreed Charge between the British Columbia Electric Railway Company Limited, the Canadian National Railways, the Canadian Pacific Railway Company *et al* and the Canada Iron Foundries Limited and the National Iron Corporation Limited on pipe, cast iron and fittings for same, except valves, from Toronto, Ontario, and Trois Rivières, Que., to points in the Province of British Columbia, effective April 1st, 1953. (Argument only)

File No. 40994-44

2. In the matter of the application of the British Columbia Lumber Manufacturers Association, under section 328 of the Railway Act and all other relevant sections thereof, for a review of the present Canadian Railway freight rates on lumber and lumber products and for an Order reducing such rates on long-haul traffic so as to reestablish equitable relationships between the competing regions in Canada which produce this primary product.

File No. 26901-62-7

3. In the matter of the application of the Canadian Forest Products Limited under sections 33, 34, 37, 44, 45, 46, 47, 51, 314, 317, 319, 320, 321, 322, 325 and all other relevant sections of the Railway Act for an Order directing the railways to extend to "Hardboard" and "Composite Board" from the Cities of Vancouver and New Westminster to destinations throughout Canada the Group "A" or plywood basis of rates in the lumber tariffs.

File No. 26901-62-8

4. In the matter of the application of The Fresh Fruit and Vegetable Receivers Association of Montreal, under sections 315, 319 and 326 of the Railway Act, for an Order directing the Canadian National Railways to furnish at the Montreal fruit terminal suitable facilities for unloading carload traffic consigned to members of the Association, and declaring unreasonable the current charge of Eleven Dollars per car, assessed by the Montreal Fruit and Produce Terminal Company Limited, for the placement of carload traffic on its tracks adjacent to the fruit terminal building.

File No. 26792-17-4

5. In the matter of the application of the Union Telephone Company Limited for an Order of the Board providing for the connection between the telephone system of the Applicant Company and that of The Bell Telephone Company of Canada and fixing the terms and compensation to each company for the services rendered.

File No. 3839-347

6. In the matter of the application of the Department of Highways of Ontario requesting the Board to amend its Order No. 57862, dated August 18, 1939, by directing the City of Kitchener, Ontario, to assume the portion of the cost of maintenance of the protective signals at the crossing of Doon Road and the Grand River Railway (C.P.R.) that was assessed the Applicant under the said Order.

File No. 35460-8

7. In the matter of the apportionment between the County of Kent, Ontario, and the New York Central Railroad Company of the cost of widening the planking and relocating the protective signals at the crossing of the County Road and the railway of the New York Central Railroad Company between Concessions A and 8, in the Township of Raleigh.

File No. 26842-18

8. In the matter of the application of the Town of Fort Erie and the Municipal Corporation of the County of Welland for an Order of the Board amending Orders No. 16064, dated March 1, 1912 and No. 16175, dated March 25, 1912, to give authority to the Applicants to construct a bridge at Central Avenue, in the Town of Fort Erie, across the lands and tracks of the New York Central Railroad Company and the Canadian National Railways; and for an Order of the Board providing for a contribution from the Railway Grade Crossing Fund towards the cost of the work and apportioning the remainder of the said cost between the New York Central Railroad Company, the Canadian National Railways and the Applicants.

File No. 18046

9. In the matter of the application of Buckerfield's Limited for an Order disallowing the increased rates on Dried Ground Grass and Alfalfa Meal from points in British Columbia and Alberta to the Head of the Lakes and to Armstrong, Ontario, for furtherance to points in Eastern Canada, and the further application for a reduction in the said rates;

And in the matter of Interim Order No. 81424 made herein, dated May 20, 1953.

File No. 30686·37

10. In the matter of representations of the Junior Chamber of Commerce of Chandler and others respecting The Bonaventure and Gaspé Telephone Company, Limited;

And in the matter of the application of The Bonaventure and Gaspé Telephone Company, Limited for adjustment of its rates for telephone service.

File No. 38503

11. In the matter of the application of Trans-Canada Pipe Lines Limited, hereinafter called the "Applicant Company", under sections 11 and 12 and other relevant sections of the Pipe Lines Act, for an Order granting leave to Trans-Canada Pipe Lines Limited to construct a pipe line for the transportation of natural gas from a point on the international boundary in the Niagara River approximately three miles north of the Lewiston Bridge, continuing approximately in a south-westerly direction to a point north of the Village of Allensburg and thence generally in a westerly direction passing through the Counties of Lincoln and Wentworth to the vicinity of the Village of Ancaster; from this point the line will continue northerly across the Dundas Marshes changing to north-easterly through Halton County and terminating at the westerly boundary of Peel County near the Village of Sheridan.

File No. 45371·20·1

12. RE Equalization Case—(Application of the B.C. Lumber Manufacturers Association)

File No. 26901·62·7

13. RE Equalization Case—(Application of the Plywood Manufacturers Association of British Columbia for rates on Plywood and the re-classification thereof the same as Lumber)

File No. 26901·62·7

14. RE Equalization Case—(Application of Canadian Forest Products Limited to extend the Plywood Rates to Hardboard and Composite Board from Vancouver and New Westminster, and the re-classification thereof)

File No. 26901·62·8

15. In the matter of the application of Buckerfield's Limited for an Order disallowing the increased rates on Dried Ground Grass and Alfalfa Meal from points in British Columbia and Alberta to the Head of the Lakes and to Armstrong, Ontario, for furtherance to points in Eastern Canada, and the further application for a reduction in the said rates; And in the matter of Interim Order No. 81424 made herein, dated May 20, 1953.

File No. 30686·37

16. In the matter of the application of the Department of Public Works of the Province of British Columbia for an Order directing the Canadian National Railways to reconstruct the overhead bridge on Carey Road which is now part of the newly constructed highway between Victoria and Patricia Bay Airport, mileage 0.1 Cowichan Subdivision; And in the matter of the apportionment of the cost of reconstruction and future maintenance of the said overhead bridge.
File No. 27847.36
17. In the matter of the application of Gypsum Lime and Alabastine, Canada, Limited, under section 328 and all other pertinent sections of the Railway Act for an adjustment of the rate on Gypsum Rock in carloads from Gypsumville, Manitoba, to St. James, Manitoba, this rate being published in item 2195 of C.N.R. Tariff No. W-192-N, C.T.C. No. W-2108, Supplement No. 89.
File No. 47487
18. In the matter of the application of Associated Foundry Limited for review and cancellation of the charge fixed by the Board under the provisions of the Transport Act for Warden King Limited by Order No. 82878, dated January 11th, 1954.
File No. 40994.44
19. In the matter of the rehearing of the application of the Municipality of the Village of Vallee Junction, in the Province of Quebec, for an Order directing the Quebec Central Railway Company to build a foot-bridge over its tracks to accommodate the pedestrians going to the station located in that Municipality.
File No. 46529
20. In the Matter of the application of Trans-Canada Pipe Lines, Limited and Western Pipe Lines, hereinafter called the "Applicants", under sections 10A, 11 and 12 and other relevant sections of the Pipe Lines Act, for an Order granting leave to the Applicants to construct a pipe line, consisting of one or more lines of pipe, for the transportation of gas from a point on the Alberta-Saskatchewan border, east of the town of Princess in the Province of Alberta, through or in the vicinity of the cities of Moose Jaw and Regina in the Province of Saskatchewan, through or in the vicinity of the cities of Brandon, Portage la Prairie and Winnipeg in the Province of Manitoba, through or in the vicinity of the towns or cities of Kenora, Port Arthur, Fort William, Nipigon, Schrieber, Marathon, Hawk Junction, Chapleau, Sudbury, North Bay, Huntsville, Gravenhurst, Toronto, Oshawa, Port Hope, Trenton, Belleville, Kingston, Brockville, Morrisburg and Cornwall in the Province of Ontario, thence to the towns of Dorion and Ste. Anne de Bellevue and the City of Montreal, in the Province of Quebec, including.
- (a) a branch line from the City of Winnipeg south to the town of Emerson in the Province of Manitoba on the border between the United States of America and Canada, and
 - (b) a branch line from the town of Brooklin to the City of Oakville in the Province of Ontario, and
 - (c) a branch line from the Town of Morrisburg to the city of Ottawa, in the Province of Ontario and the city of Hull in the Province of Quebec.

File No. 45371.20.2

21. In the matter of the application of the Canadian Passenger Association, dated May 13, 1954, and its member lines mentioned therein, for an Order rescinding Order No. 75234, dated September 22, 1950, re commutation fares.

File No. 29984-18

AND in the matter of the application of the Oakville Commuters Association complaining that commutation train service presently provided by the Canadian National Railways between Toronto-Oakville, and Montreal-St. Anne de Bellevue and Montreal-St. Eustache-sur-le-Lac unjustly discriminates against the Toronto-Oakville area in favor of the other areas, and for an Order directing Canadian National Railways to provide additional commutation train service between Oakville-Toronto.

File No. 12758-120

22. In the matter of the application of Irish Shipping Limited requesting the Board (1) to issue an Order declaring (a) that the members of The Railway Association of Canada have violated and are violating section 319 of the Railway Act by issuing Through Bills of Lading for export traffic to certain exporters and refusing to issue Through Bills of Lading to other exporters and thereby subjecting the other exporters and certain ocean carriers, including the Applicant, to undue and unreasonable prejudice and disadvantage; and (b) that the Canadian Pacific Railway Company and the Canadian National Railways have violated and are violating section 317 of the Railway Act by not charging tolls for demurrage at the port of exit equally to all shippers in respect to export traffic to England, Scotland, Wales, Northern Ireland and the Republic of Ireland; and (2) to grant such further and other relief as to the Board may seem just and proper.

File No. 3678-34-1

23. In the matter of the application of the Government of Alberta and the Chrysler Corporation of Canada, Limited, for an Order of the Board directing that appropriate officers of the C.P.R. and C.N.R. and appropriate officers of General Motors of Canada, Limited, and the Studebaker Corporation of Canada, Limited, attend for examination at the instance of the Applicants for the purposes of discovery before such member or officer of the Board as the Board may direct.

File No. 49094-60

24. In the matter of the application of the British Columbia Telephone Company under the provisions of ch. 66 of the Statutes of Canada 6-7 Geo. V, as amended by ch. 36 of 4-5 Geo. VI, ch. 86 of 11 Geo. VI and ch. 85 of 15 Geo. VI for an Order approving the terms and conditions of the issue and sale or other disposition of a total number of preferred shares of its capital stock not to exceed fifty thousand (50,000) shares of a par value of \$100.00 each.

File No. 29885-13

25. In the matter of the application of the Canadian Freight Association for approval of an Agreed Charge, dated March 30, 1954, between the carriers named therein and The Steel Company of Canada, Limited.

File No. 40994-56

26. In the matter of the application of the Canadian Freight Association for approval of an Agreed Charge, dated April 28, 1954, between the carriers named therein and Algoma Steel Corporation, Limited.
File No. 40994·58
27. In the matter of the applications of the Canadian Freight Association for approval of an Agreed Charge, dated May 4, 1954, between the carriers named therein and General Motors of Canada, Limited and for approval of Supplement No. 1 thereto between the said carriers and General Motors of Canada Limited and The Studebaker-Corporation of Canada, Limited.
File No. 40994·60
28. In the matter of the application of the Canadian Freight Association for approval of an Agreed Charge, dated March 30, 1954, between the carriers named therein and Dominion Foundries and Steel, Limited and The Steel Company of Canada, Limited.
File No. 40994·55
29. In the matter of the application of the Canadian Freight Association for approval of an Agreed Charge, dated June 24, 1954, between the carriers named therein and The Canadian Drawn Steel Company Limited and Union Drawn Steel Company Limited.
File No. 40994·62
30. In the matter of the apportionment of the remainder of the cost of the works and of the cost of maintenance in connection with the subway authorized to be constructed at the crossing of the Canadian National Railways and Davenport Road, in the City of Toronto, Ontario, by Order of the Board No. 84194, dated July 22, 1954.
File No. 132·1
31. In the matter of the application of the Canadian National Railways and the Canadian Pacific Railway Company requesting the Board to define what, if any, of the information requested by Counsel for respondents is relevant, appropriate and necessary in dealing with the application for an increase in commutation fares in the Montreal area.
File No. 29984·18
32. In the matter of the application of The Bell Telephone Company of Canada dated October 29, 1953, for an Order for leave to construct telephone lines along the sides of and across or under certain highways in the Village of Maskinonge.
File No. 44484·17
33. In the matter of the application of the Elgin Board of Trade for an Order directing the Canadian National Railways to restore the station at Elgin, Ontario, and to terminate the existing station facilities at Forfar, Ontario.
Files Nos. 4205·73
18641

34. In the matter of the application of the Canadian National Railways, under section 168 of the Railway Act and subsection 3 section 2 of the Canadian National-Canadian Pacific Act, for an Order approving the abandonment of a portion of their Algonquin Subdivision, Province of Ontario, between Falding, mileage 0·00, and Scotia, Mileage 39·95, a total distance of 39·95 miles.

File No. 39310·17

35. In the matter of the application of the Canadian National Railways, under section 259 and all other relevant sections of the Railway Act, for an Order authorizing them to cross Highbury Avenue, London, Ontario, with one additional switching lead as shown on Plan No. F-681-H, dated July 16, 1954.

File No. 26711·244

36. In the matter of the application of the City of St. Thomas, Ontario, for a review by the Board of its Order No. 84570, dated September 20, 1954, which authorized Canadian National Railways to install automatic protection to replace the existing manually operated gates at the crossing of their railway and Manitoba Street in the City of St. Thomas Ontario.

File No. 9437·654

37. In the matter of Orders Nos. 80152, and 82245 re Kenilworth Avenue subway, Hamilton, Ontario;
And in the matter of the application of Christmas Coal Company requesting the Board to assess damages pursuant to section 39 of the Railway Act.

File No. 27802·29

APPEALS FROM JUDGMENTS OF THE BOARD

During the year 1954, the Railway Association of Canada, on behalf of a certain number of its members, submitted an application for leave to appeal to the Supreme Court of Canada from the judgment of the Board of Transport Commissioners for Canada, rendered on February 15, 1954, in the Rate Base and Rate of Return case. This application was dismissed.

The Oakville Commuters' Association submitted an appeal to the Governor in Council from the Judgment and Order of the Board dated August 4, 1954, in the matter of a complaint against the Canadian National Railways in respect of alleged unjust discrimination. This case is pending.

DECISIONS OF THE BOARD

The Board's Judgments, Orders, Regulations and Rulings are published fortnightly by the Queen's Printer. The 1954 proceedings are reported in volumes 43 and 44 J.O.R. & R. The Judgments are also reported in Canadian Railway and Transport Cases.

Brief notes on some of the judgments given in 1954 appear below:

Rate Base—Rate of Return Case

43 J.O.R. & R. No. 22A

70 C.R.T.C. 186.

Application of The Railway Association of Canada, and more particularly of the Canadian Pacific Railway Company, for the establishment by the Board

of the net investment of the said company in its railway property and for the constitution of the said net investment as a rate base and for the fixing of a fair rate of return on such rate base and thereupon for a general increase in freight rates and tolls of 9 per cent and for other ancillary relief.

Proceedings in this case prior to 1954 were reviewed at page 9 of the Annual Report of the Board for 1953. The case was determined in 1954.

The application if granted in its entirety would mean the abandonment of the method heretofore used by the Board, known as the "requirements" method, whereby the Board determines the financial needs of the railways, taking Canadian Pacific as the yardstick company, for common and preferred stock dividends, fixed charges and surplus or retained earnings, and the substitution of what is called the "rate base—rate of return" method under which a return on net railway investment would be the criterion for the determination of the permissible earnings and level of rates based thereon.

The principal findings of the Board were summarized in its judgment dated February 15, 1954, as follows:

"(1) The request that the Board determine the net investment in the rail enterprise of the Canadian Pacific Railway Company is granted. For the purposes of the present application the amount of the net rail investment adopted by the Board—for use as ONE of the "end" tests in considering the reasonableness of a permissive level of rates—is \$1,140,214,801 as at December 31st, 1951.

(2) The Board considers that it would not be justified in establishing the net rail investment thus found as a rate base within the meaning of this application.

(3) The Board declines to accept the rate base—rate of return method proposed by the Canadian Pacific Railway Company which, within the meaning of this application, would be the sole method of determining a permissive level of rates.

(4) It follows that the Board declines to make a declaration that a return of not less than $6\frac{1}{2}$ per cent is a fair return on the suggested rate base representing the net investment of the Canadian Pacific Railway Company in its rail enterprise.

(5) The application for a further 9 per cent general increase in freight rates, which it is said would provide the Canadian Pacific Railway Company with a return of approximately 5 per cent on its net rail investment, is dismissed.

(6) The Board, independently of its decision not to adopt the rate base—rate of return method, also dismisses any implied request for a further declaration that a return either of $6\frac{1}{2}$ per cent (in (4) above) or some lesser percentage on its net rail investment, would be a fair return for the Canadian Pacific Railway Company. In doing so, the Board does not consider a fair return for Canadian Pacific on such net rail investment, desirable as it may be, is or should be the sole criterion to be considered in the determination of a permissive level of rates.

The Board considers that under present legislation it is at liberty to make use of the Canadian Pacific's rail operations as a yardstick for rate making purposes to such extent as future conditions may justify but it is not bound to continue to do so.

With respect to the determination of any future applications for alteration of any specific rates or the general level of rates, the Board, bearing in mind that we are living in times when rapid changes in conditions are liable to occur, wishes to leave itself free to adopt in whole or in part any existing or proposed formulae or any modification or combination of such formulae for such purposes and to such extent as it may consider appropriate under the circumstances and/or to employ any other criterion of justness and reasonableness in fixing the general or any specific level of rates which it may deem warranted."

An application to a Judge of the Supreme Court of Canada for leave to appeal from this judgment was made and refused.

Equalization of Freight Rates

43 J.O.R. & R. No. 23A

71 C.R.T.C. 22.

Proceedings prior to 1954 were reviewed at page 7 of the 1953 Report. The Uniform Class Rate Scale, Appendix "A" to the judgment dated December 12, 1952, was a provisional or tentative scale subject to objection before it would become effective and that judgment stated that the Board intended to hold regional hearings to afford parties an opportunity to show cause why the scale should not be established and to present evidence and make representations in respect of it and that if it should appear to the Board that for any reason the scale was not a proper one the Board would take appropriate action.

Regional hearings were held in 1953 and 1954. Three alternative scales were proposed, one each by the Canadian National, Canadian Pacific and the Province of Alberta.

The Board issued a supplemental judgment dated March 1, 1954, modified certain requirements of its previous judgment and prescribed a new uniform scale of mileage class rates to be made effective not later than March 1, 1955.

APPLICATION OF TRANS-CANADA PIPE LINES LIMITED for an Order granting leave to construct a pipe line for the transportation of natural gas from a point on the international boundary in the Niagara River approximately three miles north of the Lewiston Bridge, continuing approximately in a southwesterly direction to a point north of the Village of Allenburg and thence generally in a westerly direction passing through the Counties of Lincoln and Wentworth to the vicinity of the Village of Ancaster; from this point the line will continue northerly across the Dundas Marshes changing to north-easterly through Halton County and terminating at the westerly boundary of Peel County near the Village of Sheridan.

44 J.O.R. & R. 61.

71 C.R.T.C. 73.

This application was not contested and after a public hearing the Board granted leave to construct the pipe line. This project was designed to fit in with another project by Trans-Canada Pipe Lines to construct a pipe line to take gas from Alberta to the Provinces of Ontario and Quebec.

APPLICATION OF TRANS-CANADA PIPE LINES LIMITED for an Order granting leave to construct a pipe line for the transportation of gas from a point on the Alberta-Saskatchewan border, east of the Town of Princess in the Province of Alberta, through or in the vicinity of the Cities of Moose Jaw and Regina, in the Province of Saskatchewan, through or in the vicinity of the Cities of Brandon, Portage la Prairie and Winnipeg, in the Province of Manitoba, through or in the vicinity of the Towns or Cities of Kenora, Port Arthur, Fort William, Nipigon, Schreiber, Marathon, Hawk Junction, Chapleau, Sudbury, North Bay, Huntsville, Gravenhurst, Toronto, Oshawa, Port Hope, Trenton, Belleville, Kingston, Brockville, Morrisburg and Cornwall in the Province of Ontario, thence to the Towns of Dorion and Ste. Anne de Bellevue and the City of Montreal, in the Province of Quebec, including

- (a) a branch line from the City of Winnipeg south to the Town of Emerson, in the Province of Manitoba, on the border between the United States of America and Canada, and
- (b) a branch line from the Town of Brooklin to the City of Oakville, in the Province of Ontario, and

- (c) a branch line from the Town of Morrisburg to the City of Ottawa, in the Province of Ontario, and the City of Hull, in the Province of Quebec.

44 J.O.R. & R. 187.

This application was not opposed, except that a different route in Northern Ontario was sought by certain parties. The company proposes to sell Western Canadian gas to distributing utilities and industrial plants along the route and also to export gas to the United States for distribution by Northern Natural Gas Company in Minnesota, South Dakota, Iowa, Nebraska and Kansas.

The estimated cost of construction of the line was given as approximately \$300,000,000. The entire line will be approximately 2,188 miles long, a 36-inch diameter line from Alberta to Winnipeg, 24-inch from Winnipeg to Emerson, 30-inch from Winnipeg to Ontario.

The Board decided that the weight of evidence favoured the route proposed by the Company but stated that the company was looking further into the merits of the suggested alternative Northern route in Ontario and if at any time before construction begins the company becomes convinced that the Northern route should be followed the company would be at liberty to do so provided that the cost of the diversion, taking into account the relative sales potential, could not be greater than the route applied for.

The Board granted the application subject to the condition that the company satisfy the Board prior to December 31, 1954, that satisfactory arrangements have been completed for financing the construction of the line and that any licences which may be necessary under the Electricity and Fluid Exportation Act have been or will be granted, construction to be completed on or before December 31, 1957. The date for satisfying the Board as to completion of arrangements for financing construction and obtaining licences was subsequently extended by the Board at the request of the company.

APPLICATION OF THE OAKVILLE COMMUTERS ASSOCIATION complaining that commutation train service provided by the Canadian National Railways between Toronto-Oakville, and Montreal-St. Anne-de-Bellevue and Montreal-St. Eustache-sur-le-Lac unjustly discriminates against the Toronto-Oakville area and for an Order directing Canadian National Railways to provide additional commutation train service between Oakville-Toronto.

44 J.O.R. & R. 203

71 C.R.T.C. 138.

The Board held that although a difference in treatment had been established it had not been shown that any part of the Montreal area has profited at the expense of Oakville or that Oakville or the commuters there have been injured by the service given in the Montreal area; also that the operating conditions in the Toronto and Montreal areas are vastly different; and that the Canadian National has not unjustly discriminated against Oakville. The application was dismissed.

The applicant appealed from this decision to the Governor in Council and the outcome of the appeal is being awaited.

Application for an Order rescinding Order No. 75234, dated September 22, 1950, re commutation fares.

44 J.O.R. & R. 203

71 C.R.T.C. 138.

The commutation rates in effect at the time the application was made were prescribed by the Board in 1950 by its Order No. 75234. In this application the railways sought rescission of that order and concurrent freedom to put into effect increased commutation rates set forth in Schedules "A" and "B" submitted by them. They proposed to put Schedule "A" rates into effect as soon as possible, followed six months later by Schedule "B" rates. The Schedule "A" rates would incorporate half of the increases proposed and Schedule "B" rates would incorporate the full increases.

The application affected a number of areas including the Toronto and Montreal areas and it was necessary to have separate hearings at Toronto and Montreal. The hearing at Toronto was held in June for the purpose of dealing with the application insofar as it related to commutation train services and fares in the Toronto area. The Toronto Board of Trade supported the railways' application. A suggestion was made on behalf of certain commuters that any increase authorized be made more gradually than was proposed by the railways. The railways submitted that the application if granted would not do more than give them a "fighting chance" to recover mere out-of-pocket costs of the services concerned.

The Board held that in dealing with commutation services the time has arrived to apply a general rule that a railway is entitled to charge commutation rates at a level that will return at least the railway's reasonable and actual out-of-pocket cost of furnishing the commutation service concerned and that the railway should not be required by the Board to provide or continue to provide commutation services which will not meet that cost.

The Board authorized adjustment of commutation rates in the Toronto area as applied for but subject to the terms that the increases be made effective in three stages, namely, approximately 50% of the increase not earlier than September 30, 1954, another approximately 25% not earlier than six months from the effective date of the first increase, and the final portion not earlier than the expiration of another six months thereafter.

Hearings were held in the Fall of 1954 in Montreal and Ottawa but were not concluded at the end of the year.

APPLICATION OF THE CANADIAN FREIGHT ASSOCIATION for approval of an agreed charge on cast iron pipe, etc., from Toronto and Trois-Rivieres to certain points in British Columbia.

44 J.O.R. & R. 1,

71 C.R.T.C. 28.

The application to the Board for approval of the agreed charge was opposed on certain grounds, including the grounds that the agreed charge was contrary to the national freight rates policy as contained in section 336 of the Railway Act and that it was also contrary to section 337, the so-called one-third rule.

The Board in approving the agreed charge held, *inter alia*, that section 336 excluded agreed charges from the application of the national freight rates policy, that Parliament has differentiated between a competitive rate and an agreed charge and that the agreed charge was not a competitive rate subject to the one-third rule; also that the agreed charge was lawfully made and the Board cannot set against the charge any discretionary powers it may have.

APPLICATION OF THE FRESH FRUITS & VEGETABLE RECEIVERS ASSOCIATION OF MONTREAL for an Order, *inter alia*, declaring illegal an \$11.00 per car charge made by the Montreal Fruit & Produce Terminal Company, Limited.

44 J.O.R. & R. 179,

71 C.R.T.C. 158.

The Terminal Company is a wholly owned subsidiary of the Canadian National Railway Company. It leased from the C.N.R. a terminal building, lands and tracks, all of which are owned by the C.N.R.

The Board held that the charge complained of is solely for the use of and the right to use the privileges and facilities of the terminal building and leased premises other than the tracks and is not in any way in respect of the tracks or otherwise for railway services and consequently is not a toll under the Railway Act; also that the Board has no jurisdiction over the terminal facilities for which the \$11.00 charge is made.

APPLICATION OF IRISH SHIPPING LTD. re through bills of lading.

44 J.O.R. & R. 243,

71 C.R.T.C. 121.

The substance of this application was that Canadian National Railways, Canadian Pacific Railway Company and other railways issued through rail-and-ocean bills of lading for export traffic forwarded by shippers from points of origin on the railways when such traffic is to be carried from the Canadian ports of export via steamship lines who are members of the Canadian-United Kingdom Eastbound Freight Conference and denied the issuance of such bills of lading when the traffic is to be carried via steamship lines who are not members of the said Conference. The applicant is not a member of this Conference and alleged that such practice constitutes unjust discrimination against it. Saguenay Terminals Ltd., a non-conference steamship line, and affected in the same manner as the applicant, intervened in support of the application. It appeared that an agreement had been executed with the railways in 1950 whereby through bills of lading were issued by the railways for traffic moving via the applicant's ships and that such agreement continued in effect until January 1954 when it was terminated by the railways. The reason for termination was apparently because the applicant did not belong to a Conference. A previous application for membership in the Conference was denied.

The Board held that the railways are not required by the Railway Act to issue through bills of lading but when they do issue such documents and restrict the issuance to traffic moving via certain ocean lines, such as was demonstrated here, the matter becomes one for consideration as to whether the difference in treatment constitutes undue preference and prejudice which the Act forbids and charges the Board to remove if found to exist. The cancellation of the agreement and subsequent denial of its re-establishment, while carrying on such arrangement with other steamship lines, constituted undue prejudice against the applicant and intervenor. An Order was issued requiring that the undue preference be removed forthwith.

LIST OF CASES APPEALED TO THE SUPREME COURT FOR CANADA FROM
FEBRUARY 1, 1904 TO DECEMBER 31, 1954

File No.	Subject	Decision
643	Montreal Terminal Ry. Co. v Montreal St. Ry. Co. Pius IX Ave. Jurisdiction.....	Allowed
1492	James Bay Ry. Co. v G.T.R. Co. Crossing Belt Line Spur. Question of Law.....	Dismissed
1455	James Bay Ry. Co. v G.T.R. Co. Under crossing at point near Beaverton, Ont. Twp. of Thorash, Ontario.....	Dismissed
383	Ottawa Electric Ry. Co. and City of Ottawa, Ont. v Canada Atlantic Ry. Co. Bank St. Subway, Ottawa, Ont. Question of Law.....	Dismissed
1621	Toronto Ry. Co. re High level Bridge over Don Improvement and tracks of G.T.R. and C.P.R. Co., Toronto, Ont. Question of jurisdiction....	Dismissed
589	Toronto Union Station, A.R. Williams, Expropriation Jurisdiction.....	Dismissed
C. 1680	Essex Terminal Ry. Co. and W.E. & L.S.R. Ry. Co. Crossing Twp. of Sandwich, Ont. Question of Law.....	Dismissed
C. 1309	Robinson v G. T. R. Ry. Co. Two-cent rate. Question of law.....	Dismissed
689	C.P.R. Co. v G.T.R. Co. Branch Line, London, Ont. Jurisdiction.....	Dismissed
1497	T. R. Robinson v C.N.R. Co. Spur at Winnipeg, Man. Jurisdiction.....	Dismissed
9627	Montreal St. Ry. Co. re rates, Mount Royal Ward. Jurisdiction.....	Allowed
C. 1419	Ontario Department of Agriculture v G.T.R. Co. re Station at Vineland, Ont. Jurisdiction.....	Dismissed
C. 3322	Toronto Viaduct, C.P.R. Co. Question of law.....	Dismissed
C. 4897	Fencing and cattle-guards Order 7474, Appeal of C.N.R. Co. Jurisdiction.	Allowed
C. 4492 C. 3378	City of Toronto, Ont. v G.T.R. Co. and C.P.R. Co. Commutation rates. Question of law.....	Withdrawn
13079	G.T.R. Co. and C.N.C.R. re spur in Scarboro Twp., Ont. Jurisdiction..	Dismissed
C. 3269	G.T.R. Co. v British American Oil Co. re spur Oil rates. Question of law.	Dismissed.
1319	G.T.R. Co. v City of Fort William, Ont. re location. Jurisdiction.....	Dismissed
13065	N. St. C. and T. Ry. Co. Jurisdiction.....	Dismissed
18580	Clover Bar Coal Co. and W. Humberstone v G.T.R. Co. and the Clover Bar Sand & Gravel Co. Jurisdiction.....	Dismissed
12682	Regina Rates Case, Question of law.....	Dismissed
17963	G.T.P.R. Co. v British American Oil Companies. Jurisdiction.....	Dismissed
C. 3269	G.T.P.R. Co. v A. E. Purcell, Saskatoon, Sask. Jurisdiction.....	Dismissed
15530 15530.1	G.T.P.R. Co. & C.P.R. Co. v Canadian Oil Companies. Jurisdiction...	Dismissed
20062 27095	B.C. Electric Ry. Co. v V. & E. Ry. Co. v City of Vancouver, B.C. Jurisdiction.....	Dismissed
1487	N.B. Chamber and W.E.C. Phair v C.P.R. Co. Jurisdiction.....	Allowed
18578	C.N.R. Co. v W. A. Taylor, Jurisdiction.....	Dismissed
19435	G.T.R. Co. v City of Edmonton, Alta. Question of law.....	Dismissed
14329.8	Montreal Tramways and M.P. & I. Ry. Co. v Lachine Jacques Cartier & Maisonneuve Ry. Co. Jurisdiction.....	Allowed
23009	City of Hamilton, Ont. v T.H. & B. Ry. Co. Jurisdiction.....	Allowed

LIST OF CASES APPEALED TO THE SUPREME COURT FOR CANADA FROM
FEBRUARY 1, 1904 TO DECEMBER 31, 1954—Continued

File No.	Subject	Decision
21428	G.T.R. Co. v Hepworth Silicon Pressed Brick Co. Question of law.....	Dismissed
12020.70 9437.153	Toronto Ry. Co. and City of Toronto, Ont. v A.P.R. Co. Law and jurisdiction.....	Dismissed
C.3935	City of Edmonton, Alta. v E.D. & B.C. Ry. Co. Question of law.....	Dismissed
27524	G.T.R. Co. v Bourassa of Laprairie, Que. Law and jurisdiction.....	Withdrawn
13622	G.N.W. Twlg. Co. re Gen. Order 162. Question of law.....	Abandoned
27840	Government of Man. and J. B. Ashdown Hardware Co. re 15% increase in rates. Jurisdiction.....	Abandoned
26981	C.P.R. Co. v Department of Public Works for Ontario crossing Twp. of Kirkpatrick. Question of Law.....	Withdrawn
11118	E. & N. Ry. Co. Victoria Harbour Bridge. Jurisdiction.....	Abandoned
28439	Mun. of Burnaby, B.C. v B.C. Elec. Ry. Co. Communication rates. Jurisdiction.....	Abandoned
28950	City of Toronto v Toronto Terminal Ry. Co., re pipes under Bay, Scott and Yonge Streets, Toronto, Ontario. Question of law.....	Dismissed
C. 3578	Wagenast re Brampton Commutation Rates. Question of law.....	Dismissed
C. 2987	Ottawa Elec. Ry. Co. re rates. Jurisdiction.....	Dismissed
30381	V.V. & E. Ry. Co. v Vancouver Harbour Commissioners and C.N.R. re Order 31647. Jurisdiction.....	Dismissed
28140	C.P.R. Co. Overhead crossing, lots 6 and 7, con. 1, Eston Twp., Ontario.	Allowed
31531-1	Luscar Collieries Ltd. v N. S. McDonald and C.N.R. Jurisdiction.....	Allowed
32812-1	Governments of Alberta, Saskatchewan and Manitoba re Crows Nest Pass Rates.....	Allowed
34285	C.N.R. Co. re through rates via St. John and Ste. Rosalie, Gateways. Appeal allowed re movements through St. John and dismissed in respect of movements through Ste. Rosalie.....	Allowed (partly)
24822	Toronto Transportation Commission, re bridge over C.N.R. tracks at Main St., Toronto, Ontario.....	Dismissed
4000-3	Montreal Trams. Co. against Order 42501, as amended by Order 42773. Jurisdiction.....	Dismissed
16645-73	C.N.R. re opening for traffic portion of its lines Willington to Strathcona, Alta. Law and jurisdiction.....	Dismissed
6713-213	B.C.E. Ry. Co. from Order 42808. Jurisdiction.....	Dismissed
16171	Ingersoll Tel. Co. et al v B.T. Co. Question of law.....	Dismissed
9437-7	M.L.H. & P. Consolidated, B.T. Co. Montreal Trams. Co. and Montreal Trams Comm. re subway at D'Argenson St., Montreal, Que. Question of law.....	Dismissed
9437-319-16	M.L.H. & P. Consolidated, B.T. Co. and City of Montreal, re proposed line between Longue Pointe and Eastern Junction, Que. C.N.R. Question of law and jurisdiction.....	Dismissed
32453-11	B.T.C. re St. Clair Ave. Subway, Toronto, Ont. Law and jurisdiction..	Dismissed
20161	B.T.C. re grade separation, Hamilton, Ont. Law and jurisdiction.....	Dismissed
C. 4704	C.E.A. and Ont. H. Elec. Comm. re rules for wires along and across Highways. Law jurisdiction.....	Dismissed

LIST OF CASES APPEALED TO THE SUPREME COURT FOR CANADA FROM
FEBRUARY 1, 1904 TO DECEMBER 31, 1954—Continued

File No.	Subject	Decision
34123-74	Govt. of Alberta re tariffs on grain and flour to Fort William, Westport and Armstrong and to Vancouver. Question of law.....	Dismissed
27929-40	P.M.R. and Lake Erie & Detroit River Ry. Co. from Order 45736. Jurisdiction.....	Allowed
37756	City of Toronto, Ont. re Eglinton Ave. Bridge in Village of Forest Hill, Ont. Jurisdiction.....	Allowed
26782-21	Quebec Ry. L. & P. Co. re Charlesbourg Road Subway. Law and jurisdiction.....	Dismissed
35594	City of Windsor, Ont. re Bridge over C.N.R. on Sandwich St., Walkerville, Ont. Jurisdiction.....	Dismissed
38702	C.P.R. Co. v C.N.R. against Order 50139 re agreement dated Jan. 29, 1929. Question of law.....	Dismissed
38856	Elizabeth Breg and Penn Coals Ltd. re compensation in respect of coal mines and minerals in and under right of way of N.A.R. Co.....	Dismissed
17716	City of Montreal, P.Q. re removal by C.P.R. Co. of structure and works erected at certain streets of Montreal along proposed branch line through Prefontaine, Maisonneuve and Mercier never completed. Question of law.....	Dismissed
588-59	City of Toronto, Ont. re subway structure at Carlaw and Gerrard streets. Jurisdiction.....	Dismissed
34822-40	Provinces of N.S. and N.B. and P.E.I., the Transp. Comm. of the Maritime B. of T., The Halifax B. of T., the St. John B. of T., the Perth Co. B. of T., the Victoria Co. B. of T.....	Dismissed
9437-319-13	M.L.H. & P. Consolidated, B.T. Co., Montreal Trams Co. and Montreal Trams. Comm. re St. Antoine St. Subway, Montreal, Que. Question of law.....	Dismissed
	Association Ship. of N.B., the P.E.I. Potato Growers' Assoc., Porter Bros. Ltd., and Austin Scales, re rates on potatoes. Law and jurisdiction.....	Dismissed
9437-319-46	C.N.R. v M.L.H. & P. Consolidated and the B.T.C. re Montreal Terminals. Question of law.....	Dismissed
37615	B.T. Co. and C.N.R. v Corp. of the Town of N. Toronto and the Corp. of Twp. of Etobicoke, Ont. re subway at 18th St., N. Toronto. Law and jurisdiction.....	Dismissed
26765-152	The Consumers Gas Co. of Toronto and B.T. Co. v C.N.R. City of Toronto and Twp. of Scarboro, Ont., re Victoria Park Ave. Subway. Law and jurisdiction.....	Dismissed
30513	Normental Ry. Co. and Normental Mining Corp. Ltd. Order 58001. Law and jurisdiction.....	Dismissed
36156-2	Q.R.L. & P. Co. re Order of the Board dismissing the application of the Q.R.L. & P. Co. in the matter of tariff of tolls for the carriage of passengers on the motor buses operating by the Co., between the Village of St. Jean de Boischatel and the City of Quebec.....	Dismissed
6949-2	C.E.R. Co. from Order 64408, re reduction of fares.....	Dismissed
44168	Brompton Pulp and Paper Co. Ltd. and C.N.R. (C.N.R. Co.), and C.N.O.R. Co., from Order of the Board No. 66708, dated 2nd day of November 1945. Question of law.....	Abandoned
44484	Application of the Bell Telephone Company of Canada for authority to construct and maintain its lines (buried cables) across and under certain public highways in the County of Middlesex, Ontario. B.T.C. v County of Middlesex. Question of law and jurisdiction.....	Allowed

LIST OF CASES APPEALED TO THE SUPREME COURT FOR CANADA FROM
FEBRUARY 1, 1904 TO DECEMBER 31, 1954—*Concluded*

File No.	Subject	Decision
45582	From judgment in re application of the Railway Association of Canada for authority to make a General increase of 20 per cent in its freight rates.....	Allowed
26782-313	From Order of the Board No. 70832, dated the 26th day of June, 1948, authorizing construction of a viaduct over the line of the Canadian National Railways at Rimouski, P.Q., and apportioning the cost of construction and maintenance of the said viaduct.....	Allowed
45464-1	Canada Steamship Lines Limited, from Order of the Board No. 78767, dated April 16, 1952, directing the Canadian National Railways and the Canadian Pacific Railway Company to make a reduction in freight rates in accordance with Board's Circular No. 272, dated April 16, 1952, which was issued in implementation of sub-section 5 of section 18, chapter 22, 15-16 Geo. VI.....	Pending
46920-1	The Railway Association of Canada on behalf of certain of its member companies from Judgment of the Board, dated February 21, 1954, in the Rate Base-Rate of Return Case.....	Dismissed

SUMMARY

DISMISSED.....	71
ALLOWED.....	18
ABANDONED.....	6
WITHDRAWN.....	4
PENDING.....	1
TOTAL.....	100

LIST OF APPEALS TO THE GOVERNOR-IN-COUNCIL
FEBRUARY 1, 1904, TO DECEMBER 31, 1954.

File No.	Subject	Decision
389	Bay of Quinte Ry. Crossing. C.P.R. Tweed, Ont.....	Allowed
1455	James Bay Ry. Co. v G.T.R. Co. Crossing near Beaverton, Ont.....	Dismissed
1781	G.T.R. Co. v City of Chatham, Ont. Street crossing.....	Dismissed
12992	Maniwaki Br., C.P.R. Train Service from Ottawa, Ontario.....	Ref. Back
2030	Tariffs of certain Yukon Railways.....	Dismissed
17716	C.P.R. Co. Longue Pointe Spur. Maisonneuve, Que.....	Dismissed
18787	South Hazelton Townsite v G.T.R. Co.....	Ref. Back
3452-30	J. T. Rochester v G.T.R.P. Co. re Cameron Bay.....	Dismissed
12912	Park Ave. Subway, Saint Louis, P.Q.....	Dismissed
17740	Lambton to Weston Spur and C.P.R. Co.....	Abandoned
C. 3322	Toronto Viaduct.....	Dismissed
16177	C.P.R. Co. v Mountain Lumber Manufacturers' Assn. re Lumber rates..	Withdrawn
19024	G. Miller of Toronto v G.T.P.R. Co. re Station at Prince George, B.C.	Dismissed
17716-10	C.P.R. Co. v Town of Maisonneuve, P.Q. Highway Crossing.....	Dismissed
22681-25	City of Montreal, Que. v C.N.R. Co. Siding across Stadacona and Marlboro Streets, Montreal, Que.....	Abandoned
21418	City of Prince George, B.C. re Location of G.T.P.R. Co. Station between Oak and Ash Streets.....	Dismissed
20169	G.T.P.R. & C.N.R. Cos. re Interswitching at Eastern Public Cattle Market, Montreal, Que.....	Abandoned
21660	C.N.O.R. Co. v Twp. of Loughboro, Ontario.....	Dismissed
17040	C.P.R. Co. re Lambton to Weston Spur, 2nd Appeal.....	Ref. Back
27693	City of Hamilton, Ont. v G.T.M. Co. re passenger service on N. & N. "Bch". between Hamilton and Burlington Beach and Town of Bur- lington, Ont.....	Abandoned
27840	Winnipeg B. of T. re 15% increase in Freight Rates.....	Dismissed
28493-3	Town of St. Lambert, P.Q. re increase in rates on M. & S.C. Ry.....	Dismissed
28230	City of Hamilton, Ont. re Kinnear Yard.....	Ref. Back
12021-70	North Toronto Grade Separation.....	Dismissed
29040-2	National Dairy Council of Canada on behalf of Ice Cream Manufacturers, re classification of Ice Cream.....	Ref. Back
C. 955	Proprietors' League of Montreal, P.Q. re increase in B.T. Co.'s rates...	Dismissed
30424	City of Windsor, Ont. against Order 30028, re C.P.R. Freight shed across Caron Ave., Windsor, Ontario.....	Dismissed
29996	City of Toronto, Ont. re General increase in Freight Rates.....	Ref. Back
C. 955	City of Toronto, Ont. re Increase in rates of the B.T. Co.....	Ref. Back
23092-2	C.N.R. re crossing Pointe aux Trembles Ry. at Pointe aux Trembles P.Q.	Ref. Back
30380-13	National Dairy Council of Canada, re 20% increase in Cream rates.....	Ref. Back
30380	City of Toronto, Ont. re Express rates.....	Dismissed

LIST OF APPEALS TO THE GOVERNOR-IN-COUNCIL
FEBRUARY 1, 1904, TO DECEMBER 31, 1954—Continued

File No.	Subject	Decision
17112-27	Dominion Miller's Ass'n of Canada re flour arbitrariness over wheat for export.....	Dismissed
29040-2	National Dairy Council of Canada re Express Classification of Ice Cream.....	Dismissed
30686-2	Province of Alberta and British Columbia re railway tolls.....	Ref. Back
30380-13	National Dairy Council of Canada, re 20% increase cream rates.....	Allowed
3023-16	N. St. C. & T. Ry. Co. re location of its line on Oak and Merritt Streets, Merritt, Ontario.....	Withdrawn
C. 935-71	The Govt. and Attorney General of Ontario, the Cities of Montreal, Toronto, Hamilton, Ottawa and Brantford and the Union of Can. Mun. from Order 38777, re Telephone rates.....	Dismissed
52812-1	Govts. of Alberta, Sask. and Man. re Crows Nest Pass rates.....	Allowed
9754-22	Can. Shippers' Traffic Bureau, re claim against G.T.R. Co. in matter of freight overcharge.....	Dismissed
30686-2	Govts. of Alta. Sask. re rates on grain and flour to the Pacific Coast for export.....	Ref. Back
34123	United Farmers of B.C. Fraser Valley Dist. Council, re freight rates on grain and grain products over C.P.R. and C.N.R.....	Dismissed
429-3	Consumers Glass Co. Ltd., Montreal, P.Q. re freight rates on glass bottles and jars.....	Dismissed
38316	Lakeside Milling Co. Ltd., Toronto, Ont., on behalf of itself and all other inland millers in Ontario re tariffs on grain and grain products..	Abandoned
36800-1	Employees of M.C.R. Ry. Co. (N.Y.C. R.R. Co.) at Montrose, Ont., and others re alleged abandonment of the Montrose Yards.....	Dismissed
38625	Parish of N.D. du Bon Conseil, P.Q. v C.N.R. re crossing of Mitchell Station; Matter referred to the Dept. of Railways and Canals on May 16, 1954.....	Pending
39510-9	Town of Nicolet, P.Q. and His Worship Mayor H. N. Biron of Nicolet, re abandonment of operation of that portion of the Nicolet Subd. of the C.N.R. between St. Leonard Jct. and Nicolet, P.Q.; Matter referred to the Dept. of Railways and Canals on October 13, 1936....	Pending
24271-1	Prov. of B.C., the Fraser Valley Surrey Farms' Co-Operative Ass'n. and the Dist. "B" Farmers Institute of B.C. re reduction in freight rates on feed grain and mill feed.....	Dismissed
39309-5	Prov. of N.B. re abandonment of portion of N.B.S. Ry. (C.P.R. Co.) known as Shore Line Subd. between Shore Line Jct. and Bonny River.	Dismissed
26901-62-3	Chishold Saw Mills Ltd. and the Edmonton Box and Shook Co., Edmonton, Alta. re rates on Lumber and Forest products from North Central Points in Alta. to Toronto, Ontario.....	Dismissed
39310-25	Prov. of N.S., the M. of the Co. of Annapolis, the Town of Middleton, N.S., the Town of Bridgeton, N.S., M.W. Graves & Son, Ltd., Bridgeton, N.S., J. H. Ricks & Sons and the United Fruit Cos. of N.S. Ltd., against order of the Board in the matter of Joint application of the C.N.R. and C.P.R. Co. for abandonment of operation of the line of the C.N.R. between Middleton Jct., and Grenville Centre, N.S.; Matter referred to the Dept. of Transport, May 27, 1939.....	Pending
39310-36	Town of Renfrew, Ont. from Order 58759, approving the abandonment of a portion of the C.N.R. Renfrew Subd. between Arnprior and Eganville.....	Ref. Back
28420	Mun. between Montreal and Valleyfield and other interests concerned, that Order No. 62062, be rescinded or the suspension of the execution of such order until Sept. 1, 1942, in the matter of application of the N.Y.C. R.R. for permission to discontinue trains Nos. 24, 25, 30, 31, 32 and 26 running between Malone and Valleyfield and Montreal.....	Ref. Back

LIST OF APPEALS TO THE GOVERNOR-IN-COUNCIL
FEBRUARY 1, 1904, TO DECEMBER 31, 1954—*Concluded*

File No.	Subject	Decision
44482	An appeal from the judgment and Order of the Board No. 70425, dated March 30, 1948, in the matter of the application of the Railway Ass'n. of Canada, dated October 8, 1946, for an order of the Board authorizing a general increase of 30% in the freight rates.....	Ref. Back
45582-4	From judgments and orders of the Board Nos. 74034 and 74512, dated respectively, which judgments and Orders together granted an increase of twenty percent in freight rates and certain increases in the rates on coal and coke.....	Dismissed
46920-2	The Maritime provinces and the Provinces of Manitoba, Saskatchewan, Alberta and British Columbia from the Judgment and Order of the Board dated March 6, 1953, which authorized a general increase of 7% in freight rates.....	Dismissed
26825-144	The Ontario Department of Highways from Order of the Board No. 81573, dated June 15, 1953, which authorized the Canadian National Railways to construct an industrial spur across certain highways near Picton, Ontario.....	Dismissed
12758-120	Oakville Commuters' Association from the Judgment and Order of the Board dated August 4, 1954, re complaint against the Canadian National Railways in respect of alleged discrimination.....	Pending

SUMMARY

DISMISSED.....	30
ALLOWED.....	3
REFERRED BACK.....	14
WITHDRAWN.....	2
ABANDONED.....	5
PENDING.....	4
TOTAL.....	58

LIST OF REFERENCES BY THE BOARD FOR THE OPINION OF THE SUPREME
COURT OF CANADA

FEBRUARY 1, 1904 TO DECEMBER 31, 1954

- C.P.R. and James Bay Ry. Co. (Location of branch line). B.T.C. File No. 590, 36 S.C.R. 42.
 City of Toronto v. G.T.R. and C.P.R. Cos. (Brampton Commutation Rate Case No. 2). 11 C.R.C. 365
 B.T.C. File No. C. 4492.
 British Columbia Electric Ry. Co.'s application for increased rates. No judgment delivered.
 C.P.R. v G.T.R. (Myrtle Bridge Case). As to obligations under an agreement. B.T.C. File No. 23009. 17 C.R.C. 300.
 City of Hamilton v. T.H. & B.Rly. (Hunter St. Case) as to power of Board to direct a railway company to divert its line. B.T.C. File 23009. 17 C.R.C. 370.
 City of Edmonton v. Calgary & Edmonton Ry. (As to seniority at highway crossings). B.T.C. Files Nos. 22415 and 22436. 22 C.R.C. 182.
 Western Canada Flour Mills Ltd. et al v. C.P.R. and C.N.R. (re Vancouver wharfage charges). B.T.C. Files Nos. 33564-1 and 33564-5. 38 C.R.C. 124.
 Re Railway Grade Crossing Fund (Contributions therefrom in the case of highway diversions). B.T.C. File No. 26807-65-1. 40 C.R.C. 110.
 Re Maritime Freight Rates Act. Interpretation as to powers of Board thereunder. B.T.C. File No. 34822. 41 C.R.C. 46.
 St. Eugene de Guigues v. C.P.R. (Re Angliers Railway Crossing). B.T.C. File No. 38839. 46 C.R.C. 401.
 Re The Transport Act 1938 (in particular the provisions of S. 35 in regard to Agreed Charges). B.T.C. File No. 43453. 55 C.R.T.C. 162.

APPENDIX "A"

LIST OF MEMBERS OF THE BOARD WHO HAVE SERVED OR ARE SERVING.
ON THE BOARD

Member's Name	Office	Appointment	Termination
Hon. A. G. Blair, K.C.....	Chief.....	1st Feb. 1904.....	31st Oct. 1904 (resigned)
Hon. M. E. Bernier.....	Deputy.....	1st Feb. 1904.....	31 st Jan. 1914 (served term)
James Mills.....	Commr.....	1st Feb. 1904.....	31 st Jan. 1914 (served term)
Hon. A. C. Killam, K.C.....	Chief.....	6th Feb. 1905.....	1st March 1908 (died)
Hon. J. P. Mabee, K.C.....	Chief.....	28th March 1908...	6th May 1912 (died)..
D'Arcy Scott.....	Ass't.....	17th Sept. 1908....	16th Sept. 1918 (served term)
S. J. McLean.....	Commr.....	17th Sept. 1908....	16th Sept. 1918 (reappointed)
Hon. Thos. Greenway.....	Commr.....	17th Sept. 1908....	30th Oct. 1908 (died)...
A. S. Goodeve.....	Commr.....	4th April 1912.....	22nd Nov. 1920 (died)
Henry L. Drayton, K.C.....	Chief.....	1st July 1912.....	1st Aug. 1919 (resigned).
Hon. W. B. Nantel, K.C.....	Deputy.....	20th Oct. 1914.....	19th Oct. 1924 (served term)
A. C. Boyce, K.C.....	Commr.....	4th Oct. 1917.....	3rd Oct. 1927 (served term)
Dr. J. G. Rutherford, C.M.G.....	Commr.....	17th Sept. 1918....	24th July 1923 (died)
Hon. F. B. Carvell, K.C.....	Chief.....	2nd Aug. 1919.....	9th Aug. 1924 (died)
S. J. McLean, LL.B.....	Commr.....	16th Sept. 1918....	} 15th Sept. 1928 (reappointed)
	Ass't.....	6th Aug. 1919.....	
Calvin Lawrence.....	Commr.....	4th Nov. 1921.....	4th May 1931 (died)
Hon. Frank Oliver.....	Commr.....	21st Sept. 1923....	20th Sept. 1928 (reached age of 75)
Hon. H. A. McKeown, K.C.....	Chief.....	16th Sept. 1924....	28th Feb. 1931 (resigned)
Thomas Vien, K.C.....	Deputy.....	5th Sept. 1925.....	31st Jan. 1931 (resigned)...
Hon. T. C. Norris.....	Commr.....	30th March 1928...	29th March 1938 (served term)
S. J. McLean, LL.B.....	Ass't.....	17th Sept. 1928....	16th Sept. 1938 (served term)
John A. Stoneman.....	Commr.....	12th March 1929....	11th March 1939 (reappointed)
Hon. C. P. Fullerton, K.C.....	Chief.....	13th Aug. 1931.....	31st Dec. 1933 (resigned)
F. A. Labelle.....	Deputy.....	16th Dec. 1931.....	15th July 1933 (died)
G. A. Stone.....	Commr.....	16th Dec. 1931.....	15th Dec. 1941 (reappointed)
F. Nap. Garceau, K.C.....	Deputy.....	16th Sept. 1933....	10th April 1943 (reached age of 75)
Hon. Hugh Guthrie, K.C.....	Chief.....	12th Aug. 1935.....	3rd Nov. 1939 (died)
Hugh Wardrope.....	Ass't.....	8th Nov. 1938.....	8th Nov. 1948 (reappointed)
John A. Stoneman.....	Commr.....	11th March 1939...	10th March 1949
F. M. MacPherson.....	Commr.....	21st Sept. 1939....	20th Sept. 1949 (reappointed)
J. A. Cross, Col., D.S.O., K.C.....	Chief.....	1st April 1940.....	30th June 1948 (resigned)
G. A. Stone.....	Commr.....	15th Dec. 1941....	1st July 1947 (reached age of 75)
			Reappointed—1st July 1947, to 30th June 1948
Armand Sylvestre, K.C., LL.B....	Deputy.....	18th April 1945....	17th April 1955
Hon. Mr. Justice M. B. Archibald..	Chief.....	1st July 1948.....	Resigned
H. B. Chase, C.B.E.....	Commr.....	28th July 1948....	27th July 1958
Hugh Wardrope.....	Ass't.....	8th Nov. 1948.....	7th Nov. 1958
W. J. Patterson.....	Commr.....	1st April 1949.....	3rd July 1951 (resigned 1st Nov. 1950)
Hon. Mr. Justice J. D. Kearney....	Chief.....	1st Nov. 1951.....	30th Oct. 1961
C. A. Matthews.....	Commr.....	1st Jan. 1953.....	31st Dec. 1962

APPENDIX "B"

*List of Federal Public Acts Conferring
Jurisdiction on the Board of Transport Commissioners*

1. Bridges Act—Chap. 20, R.S.C. 1952.
2. C.N.R.—C.P.R. Act—Chap. 39, R.S.C. 1952.
3. Dry Docks Subsidies Act—Chap. 91, R.S.C. 1952.
4. Maritime Freight Rates Act—Chap. 174, R.S.C. 1952.
5. Pipe Lines Act—Chap. 211, R.S.C. 1952, and 1953 and 1954 amendments.
6. Radio Act—Chap. 233, R.S.C. 1952.
7. Railway Act—Chap. 234, R.S.C. 1952. This Act contains provisions, among others, with respect to abandonment of railway lines, express tolls, the Grade Crossing Fund, international bridges and tunnels, telegraph and telephone companies.
8. St. Lawrence Seaway Authority Act—Chap. 242, R.S.C. 1952.
9. Telegraphs Act—Chap. 262, R.S.C. 1952.
10. Transport Act—Chap. 271, R.S.C. 1952. This Act contains provision, among others, with respect to licensing and rate regulation of ships and agreed charges.

APPENDIX "C"

REPORT OF THE TRAFFIC DEPARTMENT FOR THE YEAR
ENDED DECEMBER 31, 1954.

Submitted herewith is the report of the Traffic Department of the Board for the calendar year 1954, setting out the number of Tariff schedules and ancillary tariff documents received for filing; also a brief summary of other work performed:

TARIFFS AND SUPPLEMENTS FILED

<i>Rail—</i>	
Freight.....	28,373
Agreed Charges.....	79
Passenger.....	1,314
Sleeping and Parlour Car.....	27
<i>Water—</i>	
Freight.....	197
Passenger.....	12
Express.....	657
Telephone.....	2,027
Telegraph.....	301
International Bridge.....	3
Total tariff schedules.....	32,990

OTHER TARIFF DOCUMENTS FILED

Concurrences.....	244
Revocation Notices.....	2
Powers of Attorney.....	62
Revocation Notices.....	76
Total tariff documents.....	384
Total.....	33,374

MARITIME FREIGHT RATES ACT

For the period July 1, 1953 to June 30, 1954 inclusive, the detail of work performed was:

Rates checked.....	999,282
Extensions checked.....	499,641
Additions checked.....	9,454
Corrections issued.....	8,558
Orders issued.....	151

Reimbursement claimed.....	\$ 1,620,556.96
Reimbursement allowed.....	1,595,906.69
Net deduction.....	24,650.27

ORDERS ISSUED

During the year, in addition to Orders issued pursuant to the Maritime Freight Rates Act as mentioned above, the following Orders were issued:

Traffic	Water Licenses	Agreed Charge	Telephone Telegraph	Bridges Tunnels	Total
38	18	67			

AGREED CHARGES

During the year Agreed Charge matters were:

New Agreements	Amendments to former Agreements	Fixed Charges	In effect December 31, 1954	
			Agreements	Shippers
24	21	64	52	219

WATER TRANSPORTATION LICENSES

Licenses, under Part 2 of the Transport Act, 1938, were granted as follows:—

Applications	Licenses	Ships	Area
9	9	71	Great Lakes
6	6	142	Mackenzie River
1	1	2	Yukon River

GENERAL

Applications or formal complaints to the Board, dealt with by this department, totalled 462. A total of 3,473 communications emanated from this department during the year relating to its administrative functions in the handling of complaints; interpretation of tariffs or classification and the filing of same; furnishing rate information; also concerning powers of attorney, concurrences, free or reduced transportation; administration of the Maritime Freight Rates Act and the granting of water licenses under the Transport Act, 1938.

CHANGES ON THE STAFF

During the year 1954, the following changes on the Staff were recorded:—

Mr. D. H. Chambers, Traffic Officer Grade 1, was retired on June 12th, after more than 44 years' service with the Board. He was first appointed to the Board, as a clerk on March 14th, 1910.

Mr. A. McCloy, Clerk Grade 4, and Mr. B. I. Needham, Traffic Officer Grade 1, were added to the Staff on March 1st, and Sept. 1st, respectively.

A. S. KIRK,
Director.

APPENDIX "D"

THE SECRETARY,
BOARD OF TRANSPORT COMMISSIONERS FOR CANADA,
OTTAWA, CANADA.

DEAR SIR,—

I submit herewith my Annual Report and information regarding the work of the Engineering Branch of the Board during the past year, and attach herewith details and summarized statement of works of the Engineering Department during the year 1954.

Yours very truly,
J. E. DUMONTIER,
Director of Engineering.

RAILWAY GRADE CROSSING FUND, AND SPECIAL VOTES

In accordance with the provisions of the Railway Act, 1909, provision was made that the sum of \$200,000 each year, for ten consecutive years from the first day of April 1909, be appropriated and set apart from the consolidated revenue fund for the purpose of aiding actual construction work for the protection, safety, and convenience of the public in respect of highway crossings of railways at rail level, in existence on the first day of April, 1909, the said sums to be placed to the credit of a special account to be known as "The Railway Grade Crossing Fund", to be applied by the Board, subject to certain limitations set out in the Act, and amending Acts, solely towards the cost (not including that of maintenance and operation), of actual construction work for the purpose specified. In 1919, the same sum was voted for another ten years, and again in 1929.

In 1947 the sum of \$200,000 a year was voted for a period of ten years, and increased to \$500,000 a year for 1948, 1949 and 1950. This sum was further increased to one million dollars for six consecutive years from the 1st day of April, 1951.

An amount of \$500,000 was transferred to the Railway Grade Crossing Fund from the Unemployment Relief Fund, 1930, and \$500,000 from the Unemployment and Farm Relief Fund, 1931-1932; \$500,000 by special vote of Parliament in 1934. In 1938, \$300,000 was placed in the Railway Grade Crossing Fund in addition to the usual \$200,000 and \$500,000 was placed in the Railway Grade Crossing Fund by special vote in 1939; \$1,000,000 by the Public Works Construction Act, 1935; \$1,000,000 by Vote 420, Special Supplementary Estimates 1936-1937; Vote 357, Special Supplementary Estimates, 1937-1938, \$1,064,000; Vote 630, Supplementary Estimates 1938-39 provided \$1,000,000; and Vote 585, Supplementary Estimates 1939-40 provided \$1,000,000, making the total provided to the end of the year 1954 of \$19,064,000.

The funds voted to the Railway Grade Crossing Fund are accumulative, whereas the money provided by the Special Votes had to be committed to projects by the end of the current fiscal year, when the vote elapsed, and funds not already committed were no longer available.

Expenditures from the Railway Grade Crossing Fund were low during the War years, due to labour and material being directed to War purposes, and recommendations were only made for protection at highway crossings when absolutely necessary at the time.

In 1928, the Railway Act was amended by Chapter 43, 18-19 George V, and provision was made that in the case of any one crossing the total amount of

money to be applied by the Board out of the Railway Grade Crossing Fund, in providing protection, safety and convenience for the public, shall not exceed forty per cent of the cost of the actual construction work, and in no case shall the contribution exceed \$100,000. This was amended by Chapter 20, 14 George VI, dated June, 1950, so that the total amount to be applied for any one crossing was increased to \$150,000. Under the terms of the Public Works Construction Act, 1935, Vote 420, of the Special Supplementary Estimates 1936-1937; Vote 357 of the Special Supplementary Estimates 1937-1938; Vote 630 Supplementary Estimates 1938-39; and Vote 585 Supplementary Estimates 1939-40; grants could be made up to 100 per cent of the cost of construction out of the funds provided under those Acts.

It will be noted that the Board is restricted to a contribution from the Railway Grade Crossing Fund of 40 per cent of the cost of construction of any project, and is not authorized to contribute to the cost of the maintenance. The remaining sixty per cent of the cost of construction and the entire cost of maintenance must be divided between the other interested parties, that is, generally the Railway and the Municipal authority. The maintenance costs of automatic protection, if capitalized in most cases, is equal to or greater than the original cost of construction.

As a result of the investigation conducted by the Board throughout the country on the problem of railway-highway crossings, as directed by Order in Council P.C. 1953-52 of January 14, 1953, a report was submitted to Parliament in 1954 making certain recommendations for amendments to the Railway Act with a view to eliminating hazards and improving the safety and convenience of the public at highway crossings.

Amongst the most important recommendations of the Board's Report are an appropriation of \$5,000,000 annually, instead of \$1,000,000 for the Railway Grade Crossing Fund; an increase in the contributions from the Railway Grade Crossing Fund from forty per cent to sixty per cent; and a maximum contribution of \$300,000 instead of \$150,000 towards the cost of any one project; also, a contribution of thirty per cent from the Railway Grade Crossing Fund towards the cost of reconstruction of existing grade separations, up to a maximum of \$150,000.00.

GRADE SEPARATIONS APPROVED IN 1954

Grade separations were approved during the year at the following points, and contributions were made towards the cost of construction out of the Railway Grade Crossing Fund:

Grade Separations	Contributions from Railway Grade Crossing Fund
Overhead bridge, C.N.R., Orillia Street crossing (Provincial Highway No. 11), Township of Orillia, Ontario.....	\$ 112,000.00
Overhead bridge, C.P.R., Crossing of road allowance between Sec. 3 and 4, Twp. 16, Rge. 13, W4M, Mileage 105.49 Swift Current Sub-division, Saskatchewan.....	67,800.00
Overhead bridge, C.P.R., Northwest Quarter of Section 6, Twp. 12, Rge. 27, W3M, Mileage 94.64 Maple Creek Subdivision, Alberta...	49,640.00
Overhead bridge, N.Y.C. and C.N.R., Central Avenue, in the Town of For Erie, Ontario.....	40,000.00
Overhead bridge, C.N.R., Lower Middle Road, Mileage 18.78 Oakville Subdivision, Ont.....	150,000.00
Subway, C.N.R., Davenport Road, Toronto, Ontario.....	150,000.00
Overhead bridge, C.N.R., West Side Road, County of Welland, Ontario.....	36,000.00
Overhead bridge, C.N.R., Southeast Quarter of Sec. 8, Twp. 53, Rge 22, W5M, Mileage 35.20 Brule Subdivision, Alberta.....	84,280.00
Overhead bridge, M.C.R., West Side Road, Welland County, Ontario	64,000.00
Overhead bridge, C.N.R., Southeast Quarter of Sec. 32, Twp. 46, Rge. 11, W4M, Mileage 33.4 Viking Subdivision, Alberta.....	75,986.00
Subway, C.P.R., First Street in the City of Medicine Hat, Alberta...	122,000.00
Overhead bridge, Mileage 22.22 Nelson Subdivision, British Columbia.	58,683.00

The following grade separations were approved during the year and contributions towards the cost could not be made from the Railway Grade Crossing Fund, under the terms of Section 265 of the Railway Act:

- Construct subway at Cavendish Boulevard under the C.P.R. at Mileage 3.68 Westmount Subdivision, city of Montreal, P.Q.
- Construct overhead bridge over the C.P.R. at Mileage 8.8 Shuswap Subdivision, British Columbia.
- Construct overhead bridge over the C.N.R. at Eglinton Avenue East, Mileage 8.26 Bala subdivision, Municipality of Metropolitan Toronto, Ontario.
- Reconstruct bridge over the C.N.R., in the Township of Brantford, at Mileage 19.57 Dundas Subdivision, Ontario.
- Construct overhead bridge in the Salmon Arm District, at Mileage 70.85 Shuswap Subdivision, British Columbia.
- Construct overhead bridge in Lot 11, Concession 1, Township Front of Leeds and Landsdowne, Ontario, over the Thousand Islands Branch of the C.N.R.
- Construct overhead bridge over the C.N.R. in Lots 13 and 14, Brant's Block, Township of Nelson, County of Halton, Ont.
- Construct overhead bridge over the C.P.R. in Lot 10, Con. 1, Township of Tyendinaga, County of Hastings, Mileage 82.8 Belleville Subdivision, Ontario.
- Construct subway under the C.P.R. at Jarry Street, Mileage 6.82 Park Avenue Subdivision, City of Montreal, P.Q.
- Construct overhead bridge on Highway No. 17, across the C.N.R. at Mileage 19.7 Van-kleek Subdivision, County of Prescott, Ontario.
- Construct overhead bridge, Highway No. 401 over the C.N.R., at Mileage 1.56 Campbellford Subdivision, County of Hastings, Ontario.
- Construct overhead bridge over the C.N.R. in Lot 16, Concession VIII, Township of Perry, Mileage 40.8 Algonquin Subdivision, Ontario.
- Reconstruct overhead bridge over the C.N.R., at Mileage 23.96 Skeena Subdivision, British Columbia.
- Construct overhead bridge over the C.P.R., at Mileage 29.64 Mountain Subdivision, British Columbia.
- Replace existing overhead bridge in Lot 30, Concession II, Township of Clarke, County of Durham, at Mileage 56.63 Oshawa Subdivision, C.P.R., Ontario.
- Construct overhead bridge over the C.N.R. at Mileage 5.33 Cowichan Subdivision in the Esquimalt District, British Columbia.
- Construct overhead bridge over the C.P.R., on Lot 2, Con. 10, Township of Goulbourn, Mileage 22.57 Carleton Place Subdivision, Ontario.

The following statements show the distribution of funds provided for the protection of highways crossing railways from 1909, when the first grant was made, to December 31, 1954:

STATEMENT SHOWING TOTAL AMOUNT PAID FOR WORK DONE IN THE DIFFERENT PROVINCES, OUT OF THE RAILWAY GRADE CROSSING FUND AND SPECIAL VOTES—PERCENTAGE OF TOTAL EXPENDITURE IN EACH PROVINCE, AND PERCENTAGE OF POPULATION OF CANADA IN EACH PROVINCE, FROM 1909 TO DECEMBER 31, 1954

Province	Total Expenditure from the different Votes	Percentage of Total amount of Expenditure	Population of Province	Percentage of Popula- tion of Canada
	\$ cts.			
British Columbia.....	1,002,673 92	6.71	1,165,000	8.33
Alberta.....	753,300 01	5.04	939,000	6.73
Saskatchewan.....	703,145 15	4.71	831,000	5.95
Manitoba.....	459,570 88	3.08	776,000	5.55
Ontario.....	7,343,096 38	49.14	4,597,000	32.89
Quebec.....	3,266,219 62	21.86	4,055,000	29.00
New Brunswick.....	523,265 68	3.50	515,000	3.68
Nova Scotia.....	862,777 41	5.78	642,000	4.59
P. E. Island.....	27,209 21	.18	98,000	.70
Newfoundland.....			361,000	2.58
	14,939,258 26	100.00	13,979,000	100.00

EXPENDITURES FOR PROTECTION AT HIGHWAY CROSSINGS
1909 TO DECEMBER 31, 1954

Province	Railway Grade Crossing Fund	Per- centage of Total	Province and/or Municipality	Per- centage of Total	Railway	Per- centage of Total	Total
	\$ cts.		\$ cts.		\$ cts.		\$ cts.
British Columbia..	1,002,673 92	39.40	979,138 05	38.48	563,032 59	22.12	2,544,844 56
Alberta.....	753,300 01	27.49	1,433,486 59	52.31	553,439 61	20.20	2,740,426 21
Saskatchewan.....	703,145 15	36.50	859,123 86	44.59	364,326 63	18.91	1,926,595 64
Manitoba.....	459,570 88	41.65	264,102 75	23.94	379,657 75	34.41	1,103,331 38
Ontario.....	7,343,096 38	21.97	11,421,385 70	34.17	14,662,102 27	43.86	33,424,584 35
Quebec.....	3,266,219 62	38.93	3,848,616 00	45.87	1,274,834 09	15.20	8,389,669 71
New Brunswick...	523,265 68	30.95	605,033 92	35.79	562,366 53	33.26	1,690,666 13
Nova Scotia.....	862,777 41	44.02	733,117 36	37.40	364,182 22	18.58	1,960,076 99
P. E. Island.....	27,209 21	55.53	16,159 42	32.98	5,637 39	11.49	49,006 02
Newfoundland.....							
	14,939,258 26	27.75	20,160,163 65	37.45	18,729,579 08	34.80	53,829,000 99

ENGINEERING DEPARTMENT
January 7, 1955.

PROTECTION AT HIGHWAY CROSSINGS BY WIG-WAGS AND BELLS, FLASHING
LIGHT SIGNALS AND BELLS, AND ELECTRIC GATES

During the year there were 73 installations of automatic protection at railway crossings, in addition to some 89 cases of circuit improvement in connection with existing protective devices.

Applications for automatic protection at railway highway level crossings are made by Municipal and Provincial Highway authorities, sometimes by the Railways. Other cases are brought to the Board's attention by the officers of the Board. All applications do not result in installation of the protection applied for, but in the majority of cases all applications entail an inspection by an Engineer of the Board and his report for the Board's decision.

In the case of all installations the Board's Engineers made inspections and conducted a thorough test to ascertain if the installation had been made in accordance with the approved practice and plans, and if the protection was working in a satisfactory manner. An audit of all costs of protection installed was made by an Engineer of the Board. This involved the checking of all items of labour, material, as well as the original invoices. Recommendation was then made in connection with payment from the Railway Grade Crossing Fund, or special fund.

There were many inspections made during the year in connection with applications for highway crossing protection which did not result in installation, since as a result of the inspection it was found that conditions did not warrant the protection applied for.

HIGHWAY CROSSINGS OPENED, CLOSED, AND HIGHWAY DIVERSIONS

There were 195 new highway crossings opened during the year, and 34 closed, together with four highway diversions. The highway crossings opened involved cases where the railway companies wished to extend their tracks across the existing public ways, and where Municipal and Highway Authorities desired to cross existing tracks by new, or diverted highways.

Plans and profiles of the proposed crossings were carefully examined by Engineers of the Board, in order to endeavour to eliminate any objectionable features, such as obstruction to view, grades of approach, etc., and to bring about

the safest possible travel conditions. A great many of the cases applied for required an examination on the ground, and recommendations were made following the inspections. Inspections were made in connection with highway diversions to eliminate wherever possible existing railway crossings.

INTERLOCKING PLANTS, AND CHANGES TO PLANTS AND SIGNALS

Recommendations were made in connection with changes to 29 interlocking plants and 20 interlocking plants were inspected in connection with Operating Orders.

When applications are made by the railways for approval of plans, covering the installation of, and changes to, signals and interlocked switches at diamond crossings, bridges, or junctions, a thorough check of track and signal plant is made to ensure that the plant is designed to provide full protection for all train movements through the interlocking with signals and switches so arranged and interlocked mechanically, electrically, or both, to prevent trains from receiving conflicting indications.

Before the plants were placed in service, the Board's Engineer made a check in the field in all cases to ensure that circuits were installed in accordance with approved plan, and that the signals and switches functioned as intended. Recommendation was made to the Board in all cases in connection with the necessary operating Order before the plants were put in operation.

During the year approval was given to the installation of a traffic control system of signals on the Quebec North Shore and Labrador Railway from Mile 220.0 to Mile 340.0, Provinces of Quebec and Newfoundland.

Approval was also given to the installation of, and changes to automatic signals on the Canadian National Railways and the Canadian Pacific Railway Company in various parts of Canada covering many miles of modernized signaling, the most extensive projects being on the Canadian Pacific Railway Company between North Bend and Yale, British Columbia, Mile 0.0 to Mile 27.0, Cascade Subdivision, and Brooks and Gleichen, Alberta, Mile 60 to Mile 130 Brooks Subdivisions, and Medonte to MacTier, Ontario, Mile 90.4 to Mile 126.9 MacTier Subdivision; and on the Canadian National Railways between Jackman and Blue River, British Columbia, Mile 65.4 to Mile 123.32 Albreda Subdivision.

All such signal installations are thoroughly inspected and checked by the Board's Signal Engineer to ensure that the signals are installed in accordance with approved plan, and that they are functioning as intended, before final recommendation was made to the Board for approval of the signals as installed.

BRIDGES

During the year there were 34 railway bridges and 30 overhead bridges and subways approved for construction and reconstruction. The use of heavier motive power has made it necessary to carry out various works capable of safely carrying the heavier rolling stock at speeds greatly in excess of those in existence some years ago. This involves strengthening and reconstruction of bridges and culverts. The plans in connection with these structures were all submitted and were examined by an Engineer of the Board, and recommendation was made to the Board in connection therewith. After the structures were completed, examinations were made in all cases by an Engineer of the Board to ascertain if the structures were built according to the approved plan and safe for the carriage of traffic.

In addition to the above, inspections were made of 115 bridges for safety of operation and recommendations were made for an Order of the Board authorizing the railway companies to operate over them.

CONSTRUCTION AND OPERATION OF BRANCH LINES AND INDUSTRIAL SPURS

The Engineering Department examined applications and plans in connection with the construction and operation over industrial spurs, and recommendations were made for 127 approving Orders.

MAINTENANCE OF TRACK AND STRUCTURES

One of the important duties of the Engineering Department of the Board is the inspection of track conditions to ensure safety of travel over approximately fifty-seven thousand miles of railway trackage in Canada under the Board's jurisdiction. The Board's Engineers throughout the year travelled over and inspected all the Main Lines of railway, and a considerable mileage of branch lines, to ensure the safety of track for public travel. Particularly close and intensive examination was made of any Subdivision where any accident took place to ensure that standard practice and standard precautions had been taken, and the trackage was being properly maintained.

TUNNELS, WATER, GAS, OIL AND SEWER PIPES,
UNDERGROUND MINE WORKINGS

In addition to the inspections enumerated above, plans were examined in connection with applications for water, gas, and sewer pipes passing under the railways. In a number of cases these involved an inspection in the field.

COMPANY PIPE LINES FOR GAS AND OIL

The Pipe Lines Act places under the jurisdiction of the Board all company pipe lines which are international or interprovincial.

During the year Western Pipe Lines was authorized to construct, and completed the construction of a 20-inch pipe line for the transmission of gas, from a point on the International Boundary in the Niagara River to a point near the Village of Sheridan, Ontario, a distance of 75 miles.

The Interprovincial Pipe Line Company received approval and completed the construction of a 30-inch oil line from a point on the International Boundary in the St. Clair River, to a point in the Township of Sarnia, a distance of 6 miles. The Interprovincial Pipe Line Company also received authority to construct an additional line of pipe along their original pipe line at various locations.

Trans Mountain Oil Pipe Line Company completed their 24-inch oil branch line from Sumas, British Columbia, to the International Boundary near Huntingdon, British Columbia, and the Company was authorized to operate this five and one-half mile branch line.

Four diversions in the Trans Northern Pipe Line Company were authorized during the year.

The completion of these pipe lines necessitated the examination of plans and field inspections by Engineers of the Board during construction, and also when the pipe lines were tested prior to the Board's authority for permission to operate the lines.

Trans Canada Pipe Lines Limited obtained leave of the Board to construct a pipe line for the transportation of gas from a point on the Alberta-Saskatchewan border, through the Cities of Regina, Winnipeg, Fort William, Sudbury, North Bay, and to Toronto and Montreal, subject to the company satisfying the Board that satisfactory arrangements had been completed for financing the construction of the pipe line.

The Engineering Department wishes to express its appreciation of the co-operation extended to it at all times during the past year by officials and engineers of the Provincial Highways Departments, Municipalities, Railways, and Pipe Line Companies.

CONTRIBUTIONS FROM RAILWAY GRADE CROSSING FUND

Protection	Location	Railway	Per cent	Contributions
				\$ cts.
Two flashing light signals and one bell, in lieu of wig wag signal.....	First road east of Station at Fenwick, Mileage 6-43 Welland Sub., Ont.....	T.H. & B.....	40	918 00
Two flashing light signals and one bell	Highway No. 17, Mileage 81-3 Beachburg Sub., Ont.....	C.N.R.....	40	2,009 75
Four manually-operated flashing light signals and two bells, in lieu present wig wag.....	Golf Street in the City of North Bay, Ontario.....	O.N.R. & C.P.R.....	40	800 00
Two flashing light signals and one bell, in lieu of automatic bell and wig wag.....	First crossing west of station at Ste. Genevieve, County of Jacques Cartier, Mileage 6-38 Montfort Sub., Que.....	C.N.R.....	40	1,880 00
Two flashing light signals and bell.....	Cote St. Louis Road, in Municipality of Ste. Scholastique, County of Two Mountains, Mileage 33-15 Lachute Sub., Que.....	C.P.R.....	40	1,815 01
Two flashing light signals and one bell.....	Mileage 107-01 Quebec Sub., Que.....	C.P.R.....	40	3,067 32
Flashing light signals and bells and short arm gates.....	Davenport Road, City of Toronto, Ontario.....	C.N.R.....	40	3,816 84
Two flashing light signals and one bell.....	First crossing west of station at South Durham, Mileage 10-42 St. Hyacinthe Sub., Que.....	C.N.R.....	40	3,920 00
Two flashing light signals with short arm gates and one bell.....	Old Belleville Road, being west of the station at Napanee, Mileage 199-50 Gananoque Sub., Ont.....	C.N.R.....	40	8,512 00
Three flashing light signals and one bell.....	Agnes Street in the Town of Megantic, Mileage 116-72 Moose Head Sub., Que.....	C.P.R.....	40	5,000 00
To flashing light signals and one bell.....	Canby Street in the Village of Port Robinson, Mileage 9-81 Welland Sub., Ont.....	C.N.R.....	40	3,700 00
Subway.....	First Street in the City of Medicine Hat, Alberta.....	C.P.R.....	40	122,000 00
Two flashing light signals and one bell.....	La Savane Road in the City of Quebec, Mileage 1-94 Lairet Sub., Que.....	C.N.R.....	40	2,840 00
Two flashing light signals and one bell.....	Highway No. 21, Mileage 54-64 Owen Sound Sub., Ont.....	C.N.R.....	40	2,760 00
Two flashing light signals and one bell.....	Route No. 55 in the Town of St. Felicien, Mileage 27-05 Roberval Sub., Que.....	C.N.R.....	40	2,050 00
Two flashing light signals and one bell.....	Crossing of the road leading to station at St. Philippe de Neri, Mileage 31-27 Montmagny Sub., Que.....	C.N.R.....	40	2,916 00
Two flashing light signals and one bell.....	Highway No. 6, north of the City of Regina at Armour, Mileage 4-2 Lanigan Sub., Sask.....	C.P.R.....	40	4,100 00
Changes to circuits of protection.....	Kerr Street in the Town of Oakville, Mileage 21-98 Oakville Sub., Ont.....	C.N.R.....	40	2,736 00
Two flashing light signals, two short arm gates, and one bell.....	Crossing just west of the station at Agincourt, Mileage 96-47 Oshawa Sub., Ont.....	C.P.R.....	40	9,860 00
Two flashing light signals and one bell.....	Highway No. 16, Mileage 73-5 Wabamun Sub., Alta.....	C.N.R.....	40	4,120 00
Two flashing light signals and one bell.....	Highway No. 7, about 2 miles north of the Town of Brampton, Mileage 9-4 Orangeville Sub., Ont.....	C.P.R.....	40	2,113 98

Two flashing light signals and one bell.	Merritt Street (Highway No. 58) in the Town of Merrifton, Ont.	C.N.R.	40	3,054 00
Two flashing light signals and one bell.	Highway No. 16 near the City of Edmonton, Mileage 164.58 Willingdon Sub., Ont.	C.P.R.	40	2,540 76
Two flashing light signals and one bell.	St. Helene Street in the Town of Montreal South, Mileage 1.65 Sorel Sub., Que.	C.N.R.	40	2,200 00
Two flashing light signals and one bell.	Third Street, two miles west of Crumlin, Mileage 111.12 Galt Sub., Ont.	C.P.R.	40	5,640 00
Two flashing light signals and one bell in lieu of two wigwags and bells.	Wellington Street in the City of Sault Ste. Marie, Ont.	C.P.R.	40	1,524 80
Two flashing light signals and one bell.	Ellice Avenue in the Municipality of St. James, Mile 3.30 Oak Point Sub., Man.	C.N.R.	40	3,080 00
Four flashing light signals and two bells, manually controlled.	Crossing of Jackson and Hunter Sts., controlled from King St. Cabin; Rebecca and Wilson Streets controlled from Canaan St. Tower, City of Hamilton, Ont.	C.N.R.	40	7,920 00
Two flashing light signals and one bell in lieu of wigwags and bells.	Crossing of highway at Brookfield, Mileage 55.27 Bedford Sub., N.S.	C.N.R.	40	1,000 00
Improve sight lines.	Crossing of highway at Mileage 71.0 Ignace Sub., Ont.	C.P.R.	40	370 00
Division and Overhead.	Orillia Street crossing, Prov Hwy. No. 11) in Township of North Orillia, Mileage 89.12 Bala Sub., Ont.	C.N.R.	40	112,000 00
Road diversion, eliminating one crossing.	Mileage 14.06 Gravelbourg Sub., in the Rural Municipality of Ferrell No. 101, Sask.	C.N.R.	40	100 00
Two flashing light signals, two short arm gates and two bells, in lieu of mechanical gates.	Dorchester St. in the City of Quebec, Mileage 159.10 Quebec Sub., Que.	C.P.R.	40	5,460 00
Two automatic flashing light signals, two short arm gates and one bell.	Crossing at Cote Noire Road, Mileage 69.51 St. Hyacinthe Sub., Que.	C.N.R.	40	10,120 00
Two flashing light signals, two short arm gates and two bells.	Rupert Street in the City of Vancouver, B.C.	G.N.R.	40	5,542 00
Two flashing light signals with short arm gates and bells.	Centre Street (Hwy. No. 41) in the Town of Napanee, Mileage 199.02 Gananoque Sub., Ont.	C.N.R.	40	9,500 00
Two flashing light signals and one bell.	Hwy. No. 26, being first public crossing west of station at St. Jean Port Joli, Mile 56.46 Montmagny Sub., Que.	C.N.R.	40	3,490 00
Overhead bridge and close existing crossing.	Mileage 105.49 Swift Current Sub. Close crossing at Road allowance between Sec. 3 and 4, Twp. 16. Rge. 13, W4M, Sask.	C.P.R.	40	67,800 00
Two flashing light signals and one bell.	Balaclava Street, in the City of St. Thomas, Ont.	C.N.R.	40	2,220 00
Overhead bridge.	Mileage 94.64 Maple Creek Sub., in Northwest Quarter of Sec. 6, Twp. 12, Rge. 27, W3M, in the Province of Alberta.	C.P.R.	40	49,640 00
Two flashing light signals, two short arm gates, and two bells, in lieu of mechanical manually-operated gates.	Crossing of King Street in the City of Welland, Ont.	N.Y.C.	40	15,800 00
Overhead bridge, and close 1 crossing.	Mileage 22.22 Nelson Sub., B.C.	C.P.R.	40	58,683 00
Overhead Bridge.	Central Avenue in the Town of Fort Erie, Ont.	C.N.R. & N.Y.C.	40	40,000 00
Change operating circuits to protection.	Highway No. 41 at Mileage 12.05 Ste. Agathe Sub., Que.	C.P.R.	40	360 00
Overhead Bridge.	Lower Middle Road, at Mileage 18.78 Oakville Sub., Ont.	C.N.R.	40	150,000 00
Two Flashing light signals and one bell.	Crossing of Hwy. No. 89, being second public crossing south of Cooks town, Mileage 68.3 Milton Sub., Ont.	C.N.R.	40	2,320 00

CONTRIBUTIONS FROM RAILWAY GRADE CROSSING FUND

Protection	Location	Railway	Per cent	Contributions \$ cts.
Two flashing light signals and one bell	Crossing of Hwy. No. 7 near Sunderland, Mileage 4-37 Cobocok Sub., Ont.	C.N.R.	40	1,900 00
Two flashing light signals and one bell	Hwy. No. 3 at Port Colborne, Mileage 1-09 Humberstone Sub., Ont.	C.N.R.	40	2,440 00
Two flashing light signals and one bell	Burrard Street, in Village of Vanderhoof, Mile 69-3 Nechako Sub., B.C.	C.N.R.	40	4,560 00
Two flashing light signals and one bell, and two short arm gates	Westbrooke Road, being first crossing east of station at Collins Bay, Mileage 180-27 Gananoque Sub., Ont.	C.N.R.	40	6,520 00
Subway	Davenport Road, Toronto, Ont.	C.N.R.		150,000 00
Two flashing light signals, two short arm gates, and one bell	Hardy Road (Tollgate Road) two miles west of City of Brantford, Mile 24-98 Dundas Sub., Ont.	C.N.R.	40	5,040 00
Two flashing light signals, two short arm gates, and two bells	Talbot Ave., in City of Winnipeg, Mileage 123-87 Keewatin Sub., Man.	C.P.R.	40	4,560 00
Two flashing light signals, two short arm gates, and two bells, in lieu of Watchman	Vernier Road, just east of Coteau Station, Quebec.	C.N.R.	40	8,080 00
Two flashing light signals, two short arm gates, and one bell	Sophia Street, in the Town of Prescott, Mileage 114-02 Cornwall Sub., Ont.	C.N.R.	40	7,712 00
Two flashing light signals and one bell	First crossing south of station at St. Janvier, Mileage 7-22 Ste. Agathe Sub., Que.	C.P.R.	40	2,740 00
Two flashing light signals and one bell	Highway No. 6 near Seal Cove, Twp. of Douglas, Mileage 94-94 Chandler Sub., Que.	C.N.R.	40	2,480 00
Changing of wig wags to flashing light signals	Highway No. 69 near Bala, Mile 116-1 MacTier Sub., Ont.	C.P.R.	40	560 00
Four flashing light signals and two bells	First street crossing of the C.P.R.—also first street crossing of the C.N.R., in the City of London, Ont.	C.N.R. & C.P.R.	40	4,140 00
Two flashing light signals and one bell	Martin Street in the Town of Milton, Ont.	C.N.R.	40	2,640 00
Two flashing light signals and one bell	Route No. 11 near Caracquet Station, Mileage 48-41 Caracquet Sub., N.B.	C.N.R.	40	2,360 00
Two flashing light signals and one bell	First public crossing north of the station at Pefferlaw, Mile 55-5 Bala Sub., Ont.	C.N.R.	40	2,680 00
Overhead Bridge	West Side Road, in the County of Welland, Ont.	C.N.R.	40	2,300 00
Two flashing light signals and one bell	First crossing north of the station at St. Gedeon, Mile 79-33 Jonquiere Sub., Que.	C.N.R.	40	36,000 00
Improve sight lines	Highway north of Gormley, in the Twp. of Whitechurch, Mileage 27-3 Bala Sub., Ont.	C.N.R.	40	3,180 00
Two flashing light signals and one bell	York Mills Road in the Township of North York, Mileage 11-2 Bala Sub., Ont.	C.N.R.	40	760 00
		C.N.R.	40	3,160 00

Two flashing light signals, two automatic short arm gates, and one bell, replacing manually-operated gates.....	Manitoba Street in the City of St. Thomas, Ont.	C.N.R.	40	5,200 00
Highway diversion and close one crossing.....	Four miles east of Campbellton, Mileage 103.6 Bathurst Sub. N.B.	C.N.R.	40	692 00
Two flashing light signals and one bell.....	Steele Street, in the City of Port Colborne, Mileage 19.61 Dunnville Sub., Ont.	C.N.R.	40	2,960 00
Overhead Bridge.....	Southeast Quarter of Sec. 8, Twp. 53, Rge. 22, W5M, at Mileage 35.20 Brule Sub., Alta.	C.N.R.	40	84,280 00
Changing circuits of automatic protection.....	Highway No. 8 near Niagara Falls, Mileage 1.21 Welland Sub., Ont.	C.N.R.	40	1,180 00
Three standard electric gate lamps on gate arms.....	Colborne Street in the City of London, Ont.	C.N.R.	40	1,040 00
Remove leaving gates and install lighting arrangements as installed with automatic short arm gates, in lieu of present protection.....	Ridout Street in the City of London, Ont.	C.N.R.	40	1,240 00
Three standard electric gate lamps on gate arms in lieu of oil lamps.....	Burwell Street in the City of London, Ont.	C.N.R.	40	980 00
Overhead Bridge.....	Southeast Quarter of Sec. 32, Twp. 46, Rge. 11, W4M, Mileage 33.4 Viking Sub., Alta.	C.N.R.	40	75,986 00
Two flashing lights, two short arm gates, and one bell.....	97th Street near 126th Ave., in City of Edmonton, Mile 2.16 Calder Yard Line, Alta.	C.N.R.	40	8,200 00
Improve Approaches.....	Crossing in the Township of Sutton, Mileage 35.96 Newport Sub., Que.	C.P.R.	40	880 00
Two flashing light signals and one bell.....	Highway No. 16, at Mileage 2.28, Camrose Sub., Alta.	C.N.R.	40	4,700 00
Two flashing light signals and one bell.....	Crossing of Hwy. No. 14, at Mileage 4.32 Camrose Sub., Alta.	C.N.R.	40	4,040 00
Two flashing light signals and one bell.....	Melvin Ave., in the City of Sudbury, Mileage 5.56 Sudbury Terminals Sub., Ont.	C.N.R.	40	1,840 00
Two flashing light signals and one bell, with special circuits.....	Douglas Street in City of Sudbury, Mileage 0.69 Webbwood Sub., Ont.	C.P.R.	40	3,960 00
Changes to automatic protection.....	Crossing east of the station at L'Islet, Mileage 64.6 Montmagny Sub., Que.	C.N.R.	40	378 00
Two flashing light signals and two bells, in lieu of Watchman.....	Sixth Street, City of Brandon, Mileage 0.10 Cromer Sub., Man.	C.N.R.	40	6,020 00
Two automatic flashing light signals and one bell.....	Eighteenth Street, in City of Brandon, Mileage 0.93 Cromer Sub., Man.	C.N.R.	40	3,820 00
Overhead Bridge.....	West Side Road, in County of Welland, Mileage 14.58 Canada Division, Ont.	M.C.R.	40	64,000 00
Two flashing light signals, two short arm gates, and two bells, in lieu of existing wig wags and bells.....	115th Ave. in City of Edmonton, Mileage 1.74 "X" Line, Edmonton Terminals Sub., Alta.	C.N.R.	40	5,600 00
Two flashing light signals, two short arm gates, and one bell, in lieu of mechanical gates.....	Depot Street, in Town of Grimsby, Mileage 27.42 Grimsby Sub., Ont.	C.N.R.	40	10,800 00
				1,292,917 16

DISTRIBUTION OF CONTRIBUTIONS BY PROVINCES

BRITISH COLUMBIA.....	\$ 68,785.00
ALBERTA.....	361,106.76
SASKATCHEWAN.....	72,000.00
MANITOBA.....	17,480.00
ONTARIO.....	706,317.07
QUEBEC.....	62,856.33
NEW BRUNSWICK.....	3,372.00
NOVA SCOTIA.....	1,000.00
PRINCE EDWARD ISLAND.....	—
NEWFOUNDLAND.....	—
	<u>\$ 1,292,917.16</u>

ENGINEERING DEPARTMENT
January 13, 1955

[illegible]

APPENDIX "E"

OTTAWA, Ontario,
February 10, 1955.

Mr. E. R. HOPKINS,
Secretary,
Board of Transport Commissioners,
OTTAWA, Ontario.

DEAR SIR:

1. Herewith, the Annual Report of the Operating Department for the year ended December 31, 1954.

2. The accomplishment of the work, hereunder described, has necessitated the travelling of 587,801 miles by officers of this Department.

3. During the year 1954, approximately 28,412,000 passengers travelled on Canadian Railways; the passenger train mileage for the year totalling approximately 47,102,400 miles.

4. As an indication of the activities of this Department, the following table will be of interest:

(a) Accidents investigated.....	2,635
(b) (i) Highway crossing accidents investigated.....	454
(ii) Other railway accidents investigated.....	2,181
(iii) Recommendations made by Operating Inspectors for protection, or other improvements at highway crossings.....	130
(c) Locomotives inspected.....	8,262
(d) Internal examinations of locomotive boilers.....	278
(e) Cars inspected.....	93,585
(i) Freight cars.....	84,617
(ii) Passenger equipment.....	8,968
(f) (i) Investigations of applications or complaints re train service changes.....	77
(ii) Applications or complaints re station services.....	76
(g) Applications re storage and handling of flammable liquids and gases.....	452
(h) Fire reports processed.....	375

5. For convenience all detail statements Nos. 1 to 15 are indexed as follows:

GENERAL ACCIDENT STATISTICS

Statement No. 1—

Record of accidents on railways subject to the Board's jurisdiction.

Statement No. 2—

Nature of accidents showing number of passengers, employees and others killed and injured.

Statement No. 3—

Nature of accidents on C.N.R., C.P.R., Miscellaneous Railways, showing number of persons killed and injured.

HIGHWAY CROSSING ACCIDENTS

Statement No. 4—

Highway crossing accidents, describing protection; also showing all crossing accidents for a five year period ended December 31, 1954.

Statement No. 5—

Highway crossing accidents by Provinces for five year period ended December 31, 1954.

Statement No. 6—

Showing various types of crossing accidents.

Statement No. 7—

Graphic chart showing number of highway crossing accidents and registration of motor vehicles.

Statement No. 8—

Chart indexes of motor vehicle registrations and highway crossing accidents 1934-1954.

Statement No. 9—

Chart indexes of motor vehicle registrations and highway crossing accidents 1940-1953.

MECHANICAL STATISTICS

Statement No. 10—

Showing defects on freight cars reported by Board's Inspectors.

Statement No. 11—

Showing defects on passenger equipment reported by Board's Inspectors.

Statement No. 12—

Showing number of defects on steam locomotives reported by Board's Inspectors.

Statement No. 13—

Showing number of defects on locomotives other than steam reported by Board's Inspectors.

Statement No. 14—

Boiler explosions and crown sheets damaged for the year 1954.

FIRE STATISTICS

Statement No. 15—

Summary of reports of fires in forested areas originating within 300 feet of track along railway lines under the Board's jurisdiction.

OPERATING

1. Conferences were held during the year in connection with Operating matters arising from investigations conducted by this Department.

These conferences were attended by representatives of the Railways and Railway Labour Organizations and the splendid co-operation received resulted in additional safeguards being provided in the matter of railway operation.

2. Officers of the Department reviewed the Code of Operating Rules for Electric lines under the Board's jurisdiction. As a result, a new book of Operating Rules for the Quebec Railway Light and Power Company (C.N.R.), was submitted for the approval of the Board. An extensive review of this book resulted in final approval by Board Order 84375.

3. During the year there were 76 applications received from the railways for removal of agents, replacing agents with caretakers, or removing caretakers. Each application was investigated on the ground by an officer of the Department in consultation with the Municipal authorities. Some 63 of these applications have been disposed of and 13 are still under consideration.

4. There were a number of applications submitted by the Railways involving major changes in passenger and mixed train services across Canada. These applications were investigated on the ground by officers of the Department and after consultation with all parties concerned, including the Municipalities affected, reports and recommendations were submitted to the Board for its consideration.

5. There were seven applications for permission to abandon railway lines, each involving joint investigations with officers of the Board's Engineering Department. These applications were investigated on the ground and joint report and recommendations submitted to the Board.

6. Inspection was made of 454 crossings during the year and 130 recommendations were made with a view to providing additional safeguards at these crossings.

7. A preliminary inspection was made of the Quebec North Shore and Labrador Railway in June, 1954, following this line being made serviceable for light traffic through to the rail head.

The Quebec North Shore and Labrador Railway extends from Seven Islands to Knob Lake, a distance of 360 miles, passing through portions of the Provinces of Quebec and Newfoundland. According to Company forecasts, a minimum of ten million tons of ore will be handled over this railway in approximately 165 days of each year.

The inspection of this railway line revealed that the sponsors of the iron ore development in this area are making every effort to provide a modern transportation system adequately equipped to handle a concentrated volume of traffic with efficiency during the hauling season.

MECHANICAL STATISTICS

Motive Power—

Number of locomotives.....	5,246
Reports of hydrostatic tests, etc.....	60,942

Inspection of Motive Power—

Locomotive Inspections.....	8,262
Locomotives found defective.....	2,042
Defects.....	3,491

Locomotive Boilers—

Applications received from Railways.....	304
Internal inspections made.....	278
Applications granted.....	273
Applications refused.....	3
Applications withdrawn after inspections made.....	2

Stationary Boilers—

Number of stationary boilers.....	1,104
Inspection reports.....	1,949
Inspections made.....	428
Fire protective appliance inspection reports.....	967

Safety Appliance and Equipment Inspections—

Freight cars inspected.....	84,617
Freight cars found defective.....	4,887
Defects.....	7,182
Passenger coaches inspected.....	8,968
Passenger coaches found defective.....	764
Defects.....	1,133

Inspection of Freight Cars for Correct Tare Weight—

Number of cars inspected.....	11,467
Number of cars found overdue for weighing for tare.....	113

Inspection of Cars for improper Air Brake Piston Travel—

Number of freight cars inspected.....	33,652
Number of freight cars with improper piston travel.....	1,056
Number of passenger cars inspected.....	4,289
Number of Passenger Cars with improper piston travel.....	18

Inspection and Testing of Air Reservoirs (Other than Locomotive)—

Number of Reservoirs.....	4,684
Number of Inspection Reports.....	4,405

REMARKS

Inspection Activities

District Inspectors were active throughout the year investigating accidents, inspecting motive power and rolling stock equipment, air brakes, boilers, pressure vessels, oil installations, etc, etc. The main scope of their work is indicated in the accompanying tables which list the number of units examined and the nature of the defects reported. Correction of all adverse conditions in connection with equipment is the concern of the Operating Department and is an important factor in the promotion of railway safety.

During the year, Inspectors rode some 400 locomotives to ascertain their safe operating condition. Car Inspectors examined 37,000 cars to check air brake piston travel.

Substantial numbers of diesel locomotives were examined, indicating the importance of this type of motive power at the expense of steam locomotives.

Loading of Open Top Cars

Almost from its inception, the Board has found it necessary for the greater safety of the public, as well as for railway employees, to impose rules in connection with the loading of open top cars. In the past, loading of scrap materials, wood, logs, lumber, etc., came in for considerable attention.

For some time, representatives of the Department and the Railways, gave study to the loading of these commodities, especially the transport of pulpwood. The investigations resulted in the adoption of acceptable loading rules which have uniform application on Canadian Railways.

Recent developments in equipment and loading techniques indicate that the rules are subject to further revision and the study will continue.

Train Air Brake Testing

Canadian railways contemplate the revision of existing train air brake rules. They propose the adoption of a Uniform Code of Air Brake Rules for use of all railways. The regulations will include train test procedures and shall have regard to current developments in motive power and train operating techniques.

The Department's Mechanical Officer is giving preliminary study to railway proposals which are nearing completion.

Revision of Safety Appliance Standards

The Board's Safety Appliance Standards which set forth specifications for couplers, handholds, ladders, steps, etc., and are of paramount importance to railway employees, have been under revision for some time past.

This year, the work of revision and consolidation was completed and the Board's proposals were presented to the railways and the Transportation Brotherhoods and submissions invited.

Since the free interchange of railway rolling stock is a feature of U.S.A. - Canadian relationship, Departmental officers have established liaison with their counterparts in the Bureau of Safety of the Interstate Commerce Commission in Washington, with a view to achieving reasonable uniformity and similarity in the regulations of the two countries.

Inspection Procedures

The increased use of motive power units, other than steam, is causing changes in departmental reporting, record keeping, etc. Steam locomotive inspection which has been in use for many years, was replaced January 1, 1955, by a new form designed to record inspection and defects of all types of locomotives; steam, diesel, electric, etc.

Railway Equipment

Presently, there is much activity in the railway equipment field.

New and improved varieties of motive power units, self-propelled cars, passenger train cars, freight cars, automatic boilers and steam generators, air brake systems, train heating and refrigerating machinery, etc., are being brought into use. Inspections of this new equipment to ensure compliance with the Board's safety requirements continues to make demands on the Department.

Locomotive Inventories—Major Railways

A check of locomotive inventories of the major railways in Canada, shows that the replacement of steam locomotives by diesel electric locomotives is continuing.

During the year the major railways installed some 206 diesel electric units and in the same period, retired 241 steam locomotives.

Year	Steam Locomotives					
	Coal Fired		Oil Fired		Total	
	C.N.R.	C.P.R.	C.N.R.	C.P.R.	C.N.R.	C.P.R.
1950.....	2,224	1,429	249	261	2,473	1,690
1951.....	2,188	1,398	252	266	2,440	1,664
1952.....	2,134	1,361	283	261	2,417	1,622
1953.....	1,932	1,329	370	265	2,302	1,594
1954.....	1,702	1,262	431	260	2,133	1,522

Year	Diesel-Electric Locomotives					
	Road Locos.		Switchers		Total	
	C.N.R.	C.P.R.	C.N.R.	C.P.R.	C.N.R.	C.P.R.
1950.....	56	87	121	103	177	190
1951.....	120	117	160	115	280	232
1952.....	202	159	193	133	395	292
1953.....	277	217	226	148	503	365
1954.....	349	311	266	148	615	459

FLAMMABLE LIQUIDS, GASES AND EXPLOSIVES

Flammable Liquids and Gases: Handling and Storage on and adjacent to Railway Property

Under the provisions of General Order No. 716, applications for 364 installations were received for approval of location and/or changes thereto. These, together with 88 applications in abeyance from 1953, were disposed of as follows:—

Cancelled.....	10
In Abeyance.....	31
Approved and Orders Issued.....	411
	452

Of the 411 approved applications, 128 were for new installations, 27 were for temporary loading facilities required for incoming oil wells pending determination of output or installation of permanent facilities.

Under the terms of General Order No. 597, 29 applications were approved or the handling and storage of liquefied petroleum gases.

TABLE OF INSTALLATIONS FOR FLAMMABLE LIQUIDS AND GASES

	Number of Installations	Number of Tanks Installed 1954	Approximate Storage Capacity (Imp. gals.)
Flammable Liquids.....	411	1,255	35,470,160
Flammable Gases.....	29	46	660,530

Plans of all proposed installations were carefully examined by Inspectors of the Board to eliminate objectionable features before construction commenced and, in addition, many field inspections of these oil and gas installations were made during the year to ensure completion in accordance with approved plans.

Regulations for the Transportation of Explosives and Other Dangerous Articles in Rail Freight and Rail Express Service including Specifications for Shipping Containers.

Supplement No. 2 to these Regulations, approved under General Order No. 791 was issued February 1, 1954, and Supplement No. 3 is in process for issue in April, 1955. General Order No. 795 and 26 Orders were issued during 1954, in connection with these Regulations. In addition to this, 80 Special Permits have been issued for extraordinary shipments.

General Orders Nos. 803 and 804 have been issued in connection with fire extinguishers and the cleaning of stations and passenger cars.

Conferences have been held with shippers, railroad officials, container manufacturers, chemical manufacturers, and other persons concerned with the transportation of explosives and other dangerous articles, as a necessary part of the development of safe and practicable means of assuring safety in transportation. In particular, the meetings with the Chief Inspector of the Bureau of Explosives, New York, and those interested in radioactive and explosive shipments have been most useful.

Cylinders for Compressed Gases

Continued interest has been shown by manufacturers for the production of various types of compressed gas cylinders in Canada, as well as for their importation. This has necessitated conferences with the manufacturers and inspection agencies concerning the appropriate rules and regulations. During the year, four Canadian firms were producing cylinders to B.T.C. specifications 3E, 4B, 4BA and 41.

FIRE PREVENTION

Weather Conditions

Weather conditions across Canada during 1954 was one of the most favourable experienced for quite a number of years.

Only in the more northerly portions of Manitoba and Saskatchewan was any marked degree of high hazard experienced for any protracted period.

Fire Statistics

Detailed statistics are shown in Statement No. 15 appended hereto, from which it will be noted 278 fires occurred during the fire season of 1954, within 15,224 miles of railway classified as forested territory. In addition, 64 fires were also reported as originating and burning in ties in the track, which did not spread or cause damage other than to track ties.

Of the total of 42,015 acres of forested lands burned over by railway caused fires, 40,371 acres burned as a result of two fire occurrences on the Quebec North Shore and Labrador Railway which points to the fact that any fire occurrence can become extremely disastrous given favourable burning conditions.

Railway Fire Patrols

The fire patrol requirements under the terms of paragraph 29 of General Order No. 548, were addressed to all the railways concerned.

Statistics showing railway forested mileage upon which patrols are prescribed follow:

Total miles of railways classified as being in forested territory for fire protection purposes.....	15,223.64
Special section patrols prescribed on.....	4,192.00
Special velocipede patrols prescribed on.....	341.90
Special power speeder patrols prescribed on.....	2,344.22
Other type special patrols prescribed on.....	89.00
Total miles on which special patrols prescribed on.....	6,967.12
Total Special Patrolmen.....	343
Average number of miles of track per patrolman.....	20.31
Total miles in forested territory on which no special patrol required, detection, reporting and extinguishing of fires being a part of the regular duties of the section forces and other employees.....	8,256.52
Total regular patrolmen (estimated).....	826
Average number of miles of track per patrolman.....	10

Inspection

Under the co-operative arrangements inaugurated in 1915 with the various Federal and Provincial Forest Services, 343 officers and men of such services were under appointment as Inspectors of the Board, distributed as follows:—

Newfoundland, Department of Natural Resources.....	3
Nova Scotia, Department of Lands & Forests, Forest Service.....	23
New Brunswick, Department of Lands & Mines, Forest Service.....	16
Quebec, Department of Lands & Forests, Forest Protection Service.....	32
Ontario, Department of Lands & Forests, Division of Forest Protection.....	130
Manitoba, Department of Mines & Natural Resources, Forest Service.....	7
Saskatchewan, Department of Natural Resources, Forestry Branch.....	8
Alberta, Department of Lands & Forests, Forestry Branch.....	16
Government of Canada, Department of Northern Affairs and National Resources, National Parks Branch.....	4
Government of Canada, Northern Administration & Lands Branch, Yukon.....	1
British Columbia, Department of Lands & Forests, Forest Service.....	103

Of the above, 37 officers have received appointment as Locomotive Fire Appliance Inspectors, distributed as follows:—

Nova Scotia, Department of Lands & Forests, Forest Service.....	2
New Brunswick, Department of Lands & Mines, Forest Service.....	5
Quebec, Department of Lands & Forests Protection Service.....	1
Ontario, Department of Lands & Forests, Division of Forest Protection.....	25
British Columbia, Department of Lands & Forests, Forest Service.....	4

During the fire season of 1954, these officers inspected fire appliances of 1,266 locomotives; 48 locomotives were found defective involving 60 defects. In addition, fire appliances were inspected on 3,714 locomotives by the Board's permanent staff, 26 locomotives being found defective, involving 51 defects. The above makes a combined total of 4,980 locomotive inspections made in connection with railway fire prevention.

FIREGUARDS, 1954

Railway	Mileage both sides of track to be accounted for exclusive of approved exemptions	Fireguard mileage constructed or maintained during year	Percentage completed
Canadian National.....	3,006.8	1,330.6	44.3
Canadian Pacific.....	2,979.5	1,963.4	65.9
Northern Alberta.....	17.0	15.3	90.0
	6,003.3	3,309.3	55.1

R. M. MACDONALD,
Director of Operation.

OPERATING DEPARTMENT

STATEMENT No. 1.—PASSENGERS, EMPLOYEES AND OTHERS KILLED AND INJURED
ON RAILWAYS UNDER THE BOARD'S JURISDICTION FOR YEAR ENDED
DECEMBER 31, 1954

Name of Railway	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Canadian National	3	387	25	905	138	392	1,205	166	1,684
Canadian Pacific	4	495	18	853	114	237	1,318	136	1,585
Algoma Central & Hudson Bay					2		2	2	
Chesapeake & Ohio					1	7	6	1	7
Dominion Atlantic				9		3	12		12
Esquimalt & Nanaimo				3		6	8		9
Essex Terminal						3	2		3
Grand River				5			5		5
Great Northern				6	2		4	2	6
Lake Erie & Northern				1	1		2	1	1
London & Port Stanley						2	2		2
Maritime Coal Railway & Power						6	1		6
Midland Railway of Mani- toba					1		1	1	
Montreal & Southern Counties					1	5	5	1	5
Napierville Junction		1		1			2		2
New York Central		1		8	3	12	19	3	21
Niagara, St. Catharines & Toronto		1				12	4		13
Northern Alberta		1		13	3	5	15	3	19
Oshawa				2		2	4		4
Quebec Central		2		4	1	1	8	1	7
Quebec North Shore & Labrador			1	2			1	1	2
Sydney & Louisburg					1		1	1	
Toronto, Hamilton & Buffalo		2		3	1	1	5	1	6
Toronto Terminals				2		1	3		3
Totals	7	890	44	1,817	269	695	2,635	320	3,402

OPERATING DEPARTMENT

STATEMENT No. 2—PASSENGERS, EMPLOYEES AND OTHERS KILLED AND INJURED,
AND NATURE OF ACCIDENTS, FOR YEAR ENDED DECEMBER 31, 1954

Classification of Accident	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Derailement.....	1	81	6	43	1	4	21	8	128
Collision head-on.....		228	2	51		3	11	2	282
Collision rear-end.....	1	115	1	38			10	2	153
Collisions, Miscellaneous.....				2			2		2
Collision with cars account open switch.....		36		11		3	3		50
Equipment struck in yard during switching or transfer movement in- cluding sideswipes of individual equipment in yards.....		1	2	30		2	23	2	33
Sideswipe.....		8		5		3	4		16
Public highway crossing protected by gates— manual.....				2	6	9	11	6	11
Public highway crossing protected by gates— automatic.....					1	3	2	1	3
Public highway crossing protected by bell.....					2	6	5	2	6
Public highway crossing protected by bell and wigwag.....	1	14		7	16	45	45	17	66
Public highway crossing protected by flashing lights and bell.....				5	10	43	37	10	48
Public highway crossing protected by watchmen.....						1	1		1
Public highway crossing unprotected.....		2	1	25	142	434	353	143	461
Private crossing.....				9	15	32	35	15	41
Trespassing.....				1	69	58	124	69	59
Working on or about engine.....			1	164			161	1	164
Miscellaneous.....		20	1	198	2	12	230	3	230
Adjusting couplers, coupl- ing and uncoupling.....			2	49			51	2	49
Run down by engine or car between stations.....				3	2		5	2	3
Handcar—accidents caus- ed by handcar, motor or velocipede.....			1	77		4	56	1	81
Handcar, motor-car, velo- cipede struck by train.....		1	4	31			23	4	32
Crawling between cars, over couplers.....				6			6		6
Struck by engine or cars on adjoining track.....			2	17			19	2	17
Struck by switch stand, water spout, mail crane or other projection.....				18			18		18
Crushed between cars and buildings, lumber piles.....			2	7		3	11	2	10
Getting on and off pas- senger trains.....	2	92					94	2	92
Injured when taking coal or water.....				15			15		15
Rock slides, or other ob- structions on track.....		12		19			9		31
Rough coupling.....		8		43		8	552		59
Riding on pilot or foot- board of engine.....				3			3		3
Obstructions, overhead and on ground.....			1	18		4	21	1	22
Falling off top of car.....			1	10			11	1	10
Falling between cars.....			1	3	1		5	2	3

STATEMENT No. 2—PASSENGERS, EMPLOYEES AND OTHERS KILLED AND INJURED,
AND NATURE OF ACCIDENTS, FOR YEAR ENDED DECEMBER 31, 1954—*Concluded*

Classification of accident	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Application and handling of air brakes, starting and stopping of trains, adjusting slack.....		33		104		4	132		141
Employees getting off train.....			1	194			195	1	194
Employees boarding train.....			1	72			73	1	72
Slipping on ice.....				55			55		55
Doors closing and other minor accidents in baggage cars and coaches.....		214		136		3	352		353
Run down by engine or cars at stations or in yards.....	1	2	8	23	1	1	36	10	26
Caught in frog, guard rail, of switch rod.....				1			1		1
Caught by engine or car while throwing switch.....				4			4		4
Falling off side or end ladders of cars.....			1	71			71	1	71
Handbrake — accidents while working handbrake.....				102			102		102
Handling freight or baggage.....				19			19		19
Loading and unloading O.C.S. materials.....				17			17		17
Work train equipment.....				15		2	15		17
Cars moved while being loaded or unloaded.....				1	1	7	7	1	8
Carmen working on or under cars on running track when moved.....				1			1		1
Chaining or unchaining cars.....				1			1		1
Coupling or uncoupling hose.....			1	27			28	1	27
Turning angle-cock.....				9			9		9
Coach window falling.....		2		1			3		3
Loads shifting in transit or switching.....				4		1	5		5
Falling or jumping off passenger train between stations.....	1	6					7	1	6
Cars running away not under control.....		1	1	18			4	1	19
Washout.....		7	3	10			5	3	17
Individual derailment of equipment in yard tracks.....				7			5		7
Caught between running boards.....				1			1		1
Fires occurring in passenger equipment.....				1			1		1
Accidents as a result of train breaking in two.....		7		13			9		20
Totals.....	7	890	44	1,817	269	695	2,635	320	3,402

STATEMENT No. 3—NATURE OF ACCIDENTS AND NUMBER OF PERSONS KILLED AND INJURED ON RAILWAYS FOR YEAR ENDED DECEMBER 31, 1954

Classification of Accident	C.N.R.			C.P.R.			Miscellaneous Railways			Total		
	Acci- dents	Killed	Injured	Acci- dents	Killed	Injured	Acci- dents	Killed	Injured	Acci- dents	Killed	Injured
Derailment.....	14	4	39	6	4	87	1	.....	2	21	8	128
Collision head-on.....	7	2	257	3	.....	22	1	.....	3	11	2	282
Collision rear-end.....	7	1	16	3	1	137	.....	.....	.....	10	2	153
Collisions, Miscellaneous.....	.....	.....	.....	2	.....	2	.....	.....	.....	2	.....	2
Collision with cars account open switch.....	2	.....	48	.....	.....	.....	1	.....	2	3	.....	50
Equipment struck in yard during switching or transfer movement including sideswipes of individual equipment in yards.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sideswipe.....	11	1	17	9	1	9	3	.....	7	23	2	33
Public highway crossing protected by gates—manual.....	3	.....	15	1	.....	1	.....	.....	.....	4	.....	16
Public highway crossing protected by gates—automatic.....	2	6	9	.....	.....	.....	2	.....	2	11	6	11
Public highway crossing protected by bell.....	1	1	3	.....	.....	3	1	.....	2	2	1	3
Public highway crossing protected by bell and wigwag.....	23	9	26	15	6	35	7	2	5	45	17	66
Public highway crossing protected by flashing lights and bell.....	25	7	33	11	3	14	1	1	1	37	10	48
Public highway crossing protected by watchmen.....	.....	.....	.....	1	.....	1	.....	.....	.....	1	.....	1
Public highway crossing unprotected.....	184	77	266	141	63	151	28	3	44	353	143	461
Private crossing.....	19	5	25	14	10	12	2	.....	4	35	15	41
Trespassing.....	64	31	33	47	29	22	13	9	4	124	69	59
Working on or about engine.....	93	1	95	64	.....	64	4	.....	5	161	1	164
Miscellaneous.....	95	1	94	126	1	125	9	1	11	230	3	230
Adjusting couplers, coupling and uncoupling.....	25	1	24	24	2	23	2	.....	2	51	2	49
Run down by engine or car between stations.....	1	.....	1	3	2	1	1	.....	1	5	3	3
Handcar—accidents caused by handcar, motor or velocipede.....	52	1	73	2	2	4	2	.....	4	56	1	81
Handcar, motor-car, velocipede struck by train.....	17	3	25	5	.....	5	1	1	2	23	4	32
Crawling between cars, over couplers.....	5	.....	5	.....	.....	1	.....	.....	.....	6	.....	6
Struck by engine or cars on adjoining track.....	9	1	8	10	1	9	.....	.....	.....	19	2	17
Struck by switch stand, water spout, mail crane or other projection.....	6	.....	6	12	.....	12	.....	.....	.....	18	.....	18
Crushed between cars and buildings, lumber piles.....	4	1	3	7	1	7	.....	.....	.....	11	2	10
Getting on and off passenger trains.....	20	1	19	72	1	71	2	.....	2	94	2	92
Injured when taking coal or water.....	3	.....	3	12	.....	12	.....	.....	.....	15	.....	15
Rock slides, or other obstructions on track.....	6	.....	16	3	.....	15	.....	.....	.....	9	.....	31
Rough coupling.....	25	.....	28	25	.....	29	2	.....	2	52	.....	59
Riding on pilot or footboard of engine.....	1	1	1	1	1	1	1	1	1	3	.....	3
Obstructions, overhead and on ground.....	9	.....	9	12	1	13	.....	.....	.....	21	1	22

Falling off top of car.....	5	1	4	5	5	1	1	1	1	11	1	10
Falling between cars.....	1	1	1	3	2	1	1	1	1	5	2	3
Application and handling of air brakes, starting and stopping of trains, adjusting slack.....	52	76	52	78	87	2	5	2	2	132	1	141
Employees getting off train.....	26	25	76	114	113	1	1	1	1	195	1	194
Employees boarding train.....	22	22	25	45	45	1	2	2	2	75	1	72
Slipping on ice.....	146	17	22	32	32	1	1	1	1	55	1	55
Doors closing and other minor accidents in baggage cars and coaches.....	146	17	146	203	204	3	3	3	3	352	3	353
Run down by engine or cars at stations or in yards.....	1	1	12	17	12	2	2	2	2	36	10	26
Caught in frog, guard rail, or switch rod.....	1	1	1	1	1	1	1	1	1	1	1	1
Falling off side or end ladders of cars.....	29	37	29	42	42	1	1	1	1	4	4	71
Handbrake—accidents while working handbrake.....	37	10	37	58	58	7	7	7	7	102	1	102
Handling freight or baggage.....	10	3	10	9	9	1	1	1	1	19	1	19
Loading and unloading O. C. S. materials.....	3	3	3	14	14	1	1	1	1	17	1	17
Work train equipment.....	8	8	10	7	7	2	2	2	2	15	1	17
Cars moved while being loaded or unloaded.....	1	1	1	5	6	1	1	1	1	7	1	8
Carmen working on or under cars on running track when moved.....	1	1	1	1	1	1	1	1	1	1	1	1
Chaining or unchaining cars.....	7	7	6	21	21	1	1	1	1	1	1	1
Coupling or uncoupling hose.....	3	3	3	9	9	1	1	1	1	28	1	27
Turning angle-cock.....	3	3	3	2	2	1	1	1	1	9	3	9
Coach window falling.....	3	3	3	2	2	1	1	1	1	3	3	3
Loads shifting in transit or switching.....	3	3	2	4	4	2	2	2	2	5	5	5
Falling or jumping off passenger train between stations.....	2	2	16	2	2	1	1	1	1	7	1	6
Cars running away not under control.....	4	4	16	1	1	1	1	1	1	4	1	19
Washout.....	3	3	5	1	1	1	1	1	1	5	3	17
Individual derailment of equipment in yard tracks.....	1	1	1	1	1	1	1	1	1	1	1	1
Caught between running boards.....	1	1	1	1	1	1	1	1	1	1	1	1
Fires occurring in passenger equipment.....	1	1	1	1	1	1	1	1	1	1	1	1
Accidents as a result of train breaking in two.....	5	5	7	4	4	13	13	13	13	9	20	20
Totals.....	1,205	166	1,684	1,318	1,585	112	18	133	2,635	320	3,402	3,402

STATEMENT No. 5—HIGHWAY CROSSING ACCIDENTS BY PROVINCES FOR 5 YEAR PERIOD—1950 TO 1954 INCLUSIVE

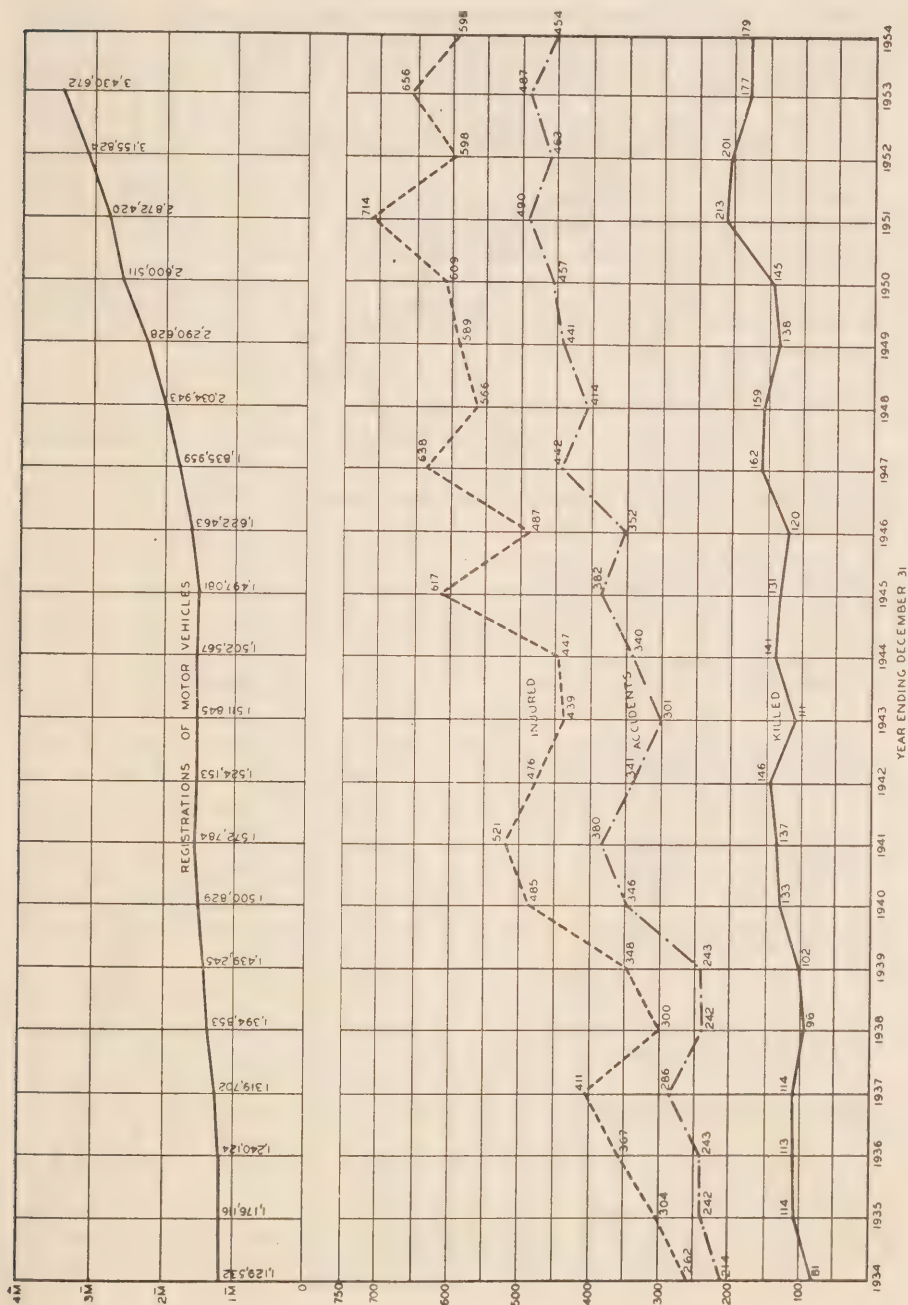
—	NEW- FOUND- LAND	PRINCE EDWARD ISLAND	NOVA SCOTIA	NEW BRUNSWICK	QUEBEC	ONTARIO	MANTOBA	SASKAT- CHEWAN	ALBERTA	BRITISH COLUMBIA	TOTALS
1950.....	.....	4	17	16	81	200	34	36	47	22	457
1951.....	1	6	14	26	92	215	26	29	51	30	490
1952.....	3	2	15	17	89	192	30	37	49	29	403
1953.....	1	1	11	12	83	198	42	52	58	29	487
1954.....	2	.....	14	13	80	208	34	35	49	19	454

STATEMENT No. 6—CONTRIBUTING FACTORS INVOLVED IN VARIOUS CLASSES OF CROSSING ACCIDENTS FOR YEAR 1954

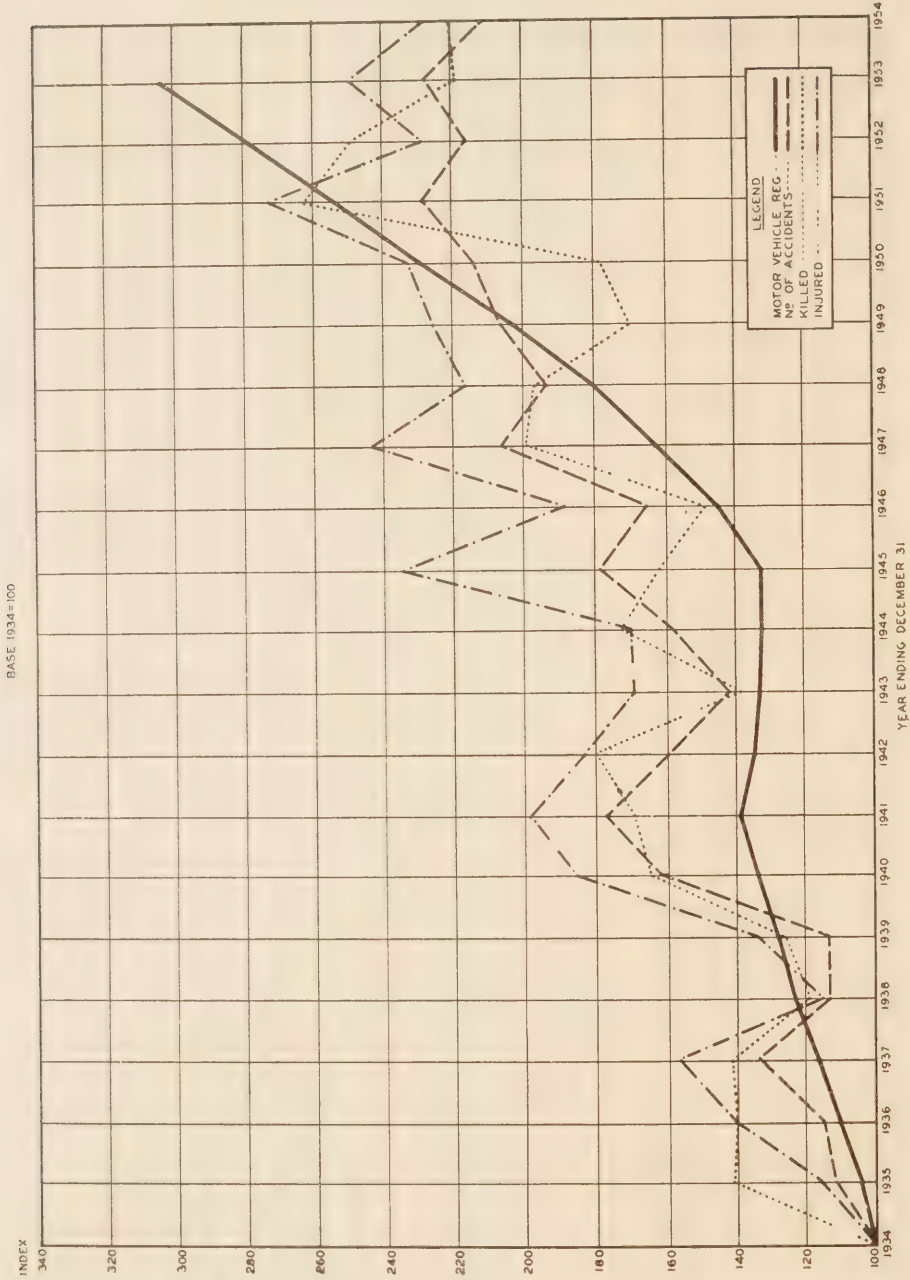
	Accidents	Killed	Injured
<i>Motor Vehicles Struck by Train—</i>			
Daylight hours.....	150	78	185
Night hours.....	114	60	142
Totals.....	264	138	327
<i>Horse-Drawn or Other Vehicles Struck by Train—</i>			
Daylight hours.....	4	1	3
Night hours.....	1		1
Totals.....	5	1	4
<i>Pedestrians Struck by Train—</i>			
Daylight hours.....	14	10	4
Night hours.....	9	5	5
Totals.....	23	15	9
<i>Motor Vehicles Running into Side of Train—</i>			
Daylight hours.....	46	13	55
Night hours.....	94	11	167
Totals.....	140	24	222
<i>Accidents in which Track Cars Involved—</i>			
Daylight hours.....	20	1	32
Night hours.....	1		1
Totals.....	21	1	33
<i>Other Types of Crossing Accidents—</i>			
Daylight hours.....*	1		1
Night hours.....			
Totals.....	1		1
<i>Total Number of Accidents—</i>			
Daylight hours.....	235	103	280
Night hours.....	219	76	316
Grand Total.....	454	179	596

* Man struck by train when he jumped from automobile which failed to stop at highway crossing.

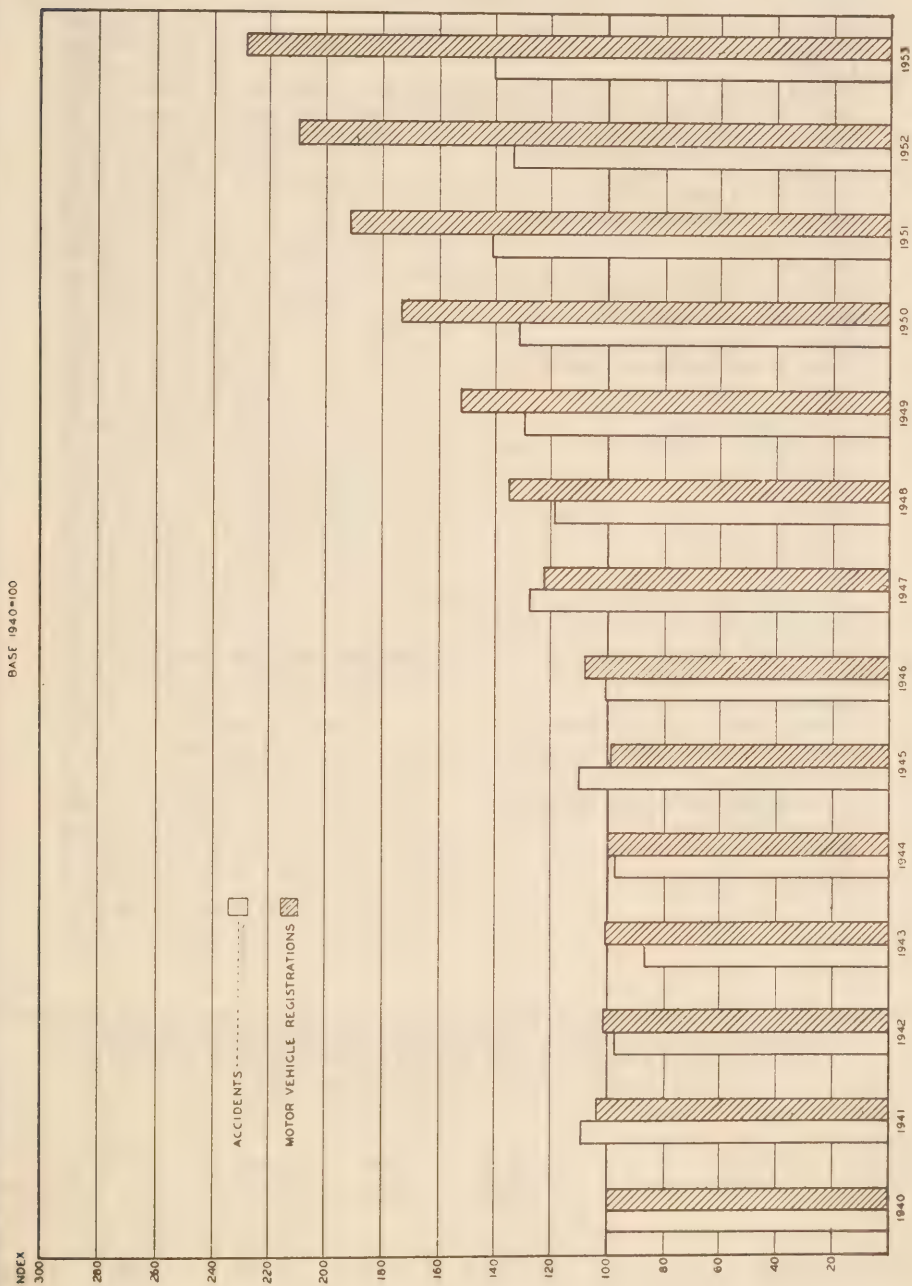
STATEMENT No 7—MOTOR VEHICLE REGISTRATIONS AND HIGHWAY CROSSING
ACCIDENTS 1934-1953—BOARD OF TRANSPORT COMMISSIONERS
FOR CANADA—OPERATING BRANCH



STATEMENT No. 8—INDEXES OF MOTOR VEHICLE REGISTRATIONS AND HIGHWAY
CROSSING ACCIDENTS 1934-1954—BOARD OF TRANSPORT COMMISSIONERS
FOR CANADA—OPERATING BRANCH



STATEMENT No. 9—INDEXES OF MOTOR VEHICLE REGISTRATIONS AND HIGHWAY
CROSSING ACCIDENTS 1940-1953—BOARD OF TRANSPORT COMMISSIONERS
FOR CANADA—OPERATING BRANCH



TRANSPORT COMMISSIONERS FOR CANADA

STATEMENT No. 10—DEFECTS ON FREIGHT CARS REPORTED BY THE BOARD'S INSPECTORS FOR THE YEAR ENDED DECEMBER 31st., 1954

Classification	Number of Defects
Handholds.....	508
Sill Steps.....	519
Ladders.....	263
Running boards.....	465
Safety bars, door locks, end gates and catches, latches, etc.....	12
Defects, miscellaneous safety appliances.....	44
Coupler improper height above rails.....	137
Coupler and pin.....	47
Knuckle and knuckle pin.....	2
Draft gear, yoke, springs, plates, etc.....	249
Carrier iron.....	211
Operating lever.....	261
Buffers, face plates and diaphragms, curtains, etc.....	24
Miscellaneous draft gear defects.....	55
Handbrake equipment.....	433
Foundation brake gear equipment.....	396
Piping, fittings, valves and reservoirs.....	327
Air brake equipment.....	125
Periodic testing, cleaning, etc.....	313
Improper piston travel.....	1,056
Miscellaneous defects to brake equipment.....	2
Center sill.....	50
Longitudinal sill.....	3
Side sill.....	22
Cross bar.....	2
Body bolster.....	48
Miscellaneous underframe.....	12
Car over-due for reweighing (out of date for tare).....	113
Sheathing defects—wood or metal units.....	22
Floor and roofing.....	68
Doors, side, or end, hoppers, hatches and their openers, fasteners, levers, etc.....	69
Miscellaneous car body.....	79
All wheel defects.....	64
Boxes over-due for repack or inspection.....	295
Journal box and solid bearing.....	65
All anti-friction bearing and associated part defects.....	8
Truck side frame.....	72
Center casting, side bearing, bolster, etc.....	385
Truck spring defects.....	348
Miscellaneous truck defects.....	6
Defects to stoves.....	1
Emergency tools.....	1
Total Defects.....	<u>7,182</u>

NUMBER OF FREIGHT CARS INSPECTED, SHOWING CARS DEFECTIVE, NUMBER OF DEFECTS, ALSO NUMBER OF CARS INSPECTED FOR OVERDUE FOR WEIGHING FOR TARE AND IMPROPER PISTON TRAVEL FOR THE YEAR ENDED DECEMBER 31st., 1954

Railway	Total Cars Inspected	Total Cars Defective	Total Number of Defects	Cars Inspected	
				Over-due Fare	Improper Piston Travel
Canadian National.....	48,663	2,655	3,978	7,035	18,150
Canadian Pacific.....	34,372	2,048	2,927	4,025	14,077
Miscellaneous.....	3,582	184	277	407	1,425
Totals.....	84,617	4,887	7,182	11,467	33,652

STATEMENT No. 11—DEFECTS ON PASSENGER CARS REPORTED BY THE BOARD'S INSPECTORS FOR THE YEAR ENDED DECEMBER 31st., 1954

Classification	Number of defects
Handholds.....	53
Sill steps.....	7
Ladders.....	1
Safety bars, door locks, end gates and catches, latches, etc.....	35
Miscellaneous safety appliance defects.....	7
Coupler improper height above rails.....	4
Coupler and coupler pin.....	2
Draft gear, yoke, springs, plates, etc.....	8
Carrier iron.....	7
Operating lever.....	14
Buffers, face plates and diaphragms, curtains, etc.....	83
Handbrake equipment.....	11
Foundation brake gear equipment.....	16
Piping, fittings, valves and reservoirs.....	18
Air brake equipment.....	15
Periodic testing, cleaning, etc.....	77
Improper piston travel.....	18
Train signal line apparatus.....	1
Doors, fasteners, levers, etc.....	27
Miscellaneous car body defects.....	3
Boxes over-due for repack or inspection.....	24
Journal box and solid bearing defects.....	17
Anti-friction bearing and associated parts.....	3
Truck side frame.....	8
Center casting, side bearing, bolster, etc.....	18
Truck spring defects.....	17
Miscellaneous trucks defects.....	9
Filters, fans, strainers, intakes, ducts, etc.....	7
Miscellaneous air-conditioning equipment.....	1
Steam line.....	67
Generator and associated parts.....	4
Batteries, battery holders.....	1
Jumper and receptacles, wiring defects, etc.....	3
Gas, holders and connections, piping fittings, gauges, emergency keys, mantles and globes, etc.....	69
Unsafe condition of seats, parcel racks, berths, etc.....	192
Drinking water and water raising systems.....	161
Emergency tools.....	119
Miscellaneous defects interior passenger train cars.....	6
Total Defects.....	1,133

NUMBER OF PASSENGER CARS INSPECTED, SHOWING CARS DEFECTIVE, NUMBER OF DEFECTS, ALSO NUMBER OF CARS INSPECTED FOR IMPROPER PISTON TRAVEL FOR THE YEAR ENDED DECEMBER 31st., 1954

Railway	Total Cars Inspected	Total Cars Defective	Total Number of Defects	Cars Inspected
				Improper Piston Travel
Canadian National.....	5,072	533	822	2,571
Canadian Pacific.....	3,654	195	253	1,508
Miscellaneous.....	242	36	58	210
Totals.....	8,968	764	1,133	4,289

STATEMENT No. 12—DEFECTS ON STEAM LOCOMOTIVES REPORTED BY THE BOARD'S INSPECTORS FOR THE YEAR ENDED DECEMBER 31st, 1954

Classification	Number of defects
Inspections or tests not made as required.....	3
Safety appliances.....	286
Brake equipment.....	354
Driving engine and tender truck wheels; centers, tires and axles.....	82
Lights.....	27
Draft gear and draw gear.....	128
Whistles (Horns), bells.....	87
Springs and spring rigging.....	375
Sanders.....	23
Cabs, cab windows, etc.....	86
Badge plates.....	3
Fire protective appliances.....	111
Gauges, steam and air.....	42
Electric meters (Indicating devices).....	2
Running defects—En route inspection.....	21
Flues and tubes.....	4
Boiler, shell, steam dome, etc.....	83
Firebox sheets.....	25
Crown bolts, stay bolts.....	39
Water glass.....	52
Gauge cocks.....	13
Water columns.....	1
Blow-off cocks.....	102
Plugs and studs.....	31
Washout plugs and pads.....	163
Injectors, feed-water pumps, and appurtenances.....	225
Safety valves.....	15
Steam pipes.....	36
Steam and oil valves.....	27
Throttle and dry pipe.....	57
Lubricators and appurtenances.....	2
Lateral motion.....	37
Ashpan dumping gear, grate shakers and fire doors.....	3
Reversing gear.....	31
Cross-heads, guides, pistons and rods.....	77
Cylinders, saddles, steam chests, cylinder cocks.....	23
Smoke boxes, stacks.....	1
Driving baxes, shoes and wedges, and cellars.....	79
Side rods and crank pins.....	18
Valve motion.....	60
Frames.....	32
Trucks.....	70
Trucks—tender.....	88
Frames—tender.....	43
Tenders.....	109
Stoker.....	4
Total defects.....	3,180

NUMBER OF STEAM LOCOMOTIVES INSPECTED, SHOWING ENGINES DEFECTIVE AND NUMBER OF DEFECTS FOR YEAR ENDED DECEMBER 31st, 1954

	Locomotives Inspected	Locomotives Defective	Total Defects
Canadian National.....	3,762	1,114	1,982
Canadian Pacific.....	2,518	636	1,069
Miscellaneous.....	321	70	129
Totals.....	6,601	1,820	3,180

STATEMENT No. 13—DEFECTS ON LOCOMOTIVES OTHER THAN STEAM REPORTED BY THE BOARD'S INSPECTORS FOR THE YEAR ENDED DECEMBER 31st, 1954

Classification	Number of defects
Inspections or tests not made as required.....	1
Safety appliances.....	18
Brake equipment.....	48
Driving engine truck wheels, centers, tires and axles.....	10
Lights.....	2
Draft-gear and draw-gear.....	9
Springs and spring rigging.....	1
Sanders.....	11
Cabs, cab windows, etc.....	7
Gauges, air and steam.....	1
Trucks.....	5
Internal combustion engines.....	52
Main generator.....	1
Traction motor.....	1
Circuits, terminals, cables.....	8
Control equipment.....	5
Fire extinguishers, fire fighting equipment.....	2
Fuel supply.....	17
Accident prevention—cleanliness.....	103
Miscellaneous—diesel electric locomotives.....	3
Feedwater system and appurtenances.....	1
Water tanks.....	2
Steam lines and connections.....	1
Air supply equipment.....	2
Total defects.....	311

NUMBER OF LOCOMOTIVES OTHER THAN STEAM INSPECTED, SHOWING ENGINES DEFECTIVE AND NUMBER OF DEFECTS FOR YEAR ENDED DECEMBER 31st, 1954

	Locomotives Inspected	Locomotives Defective	Total Defects
Canadian National.....	829	102	131
Canadian Pacific.....	413	76	115
Miscellaneous.....	419	44	65
Totals.....	1,661	222	311

STATEMENT No. 14.—STATEMENT OF BOILER EXPLOSIONS AND CROWN SHEETS DAMAGED FOR THE YEAR 1954

Crown Sheets Damaged

Railway	Date	Engine No.	Place	Remarks
Canadian National	January 17	C.N. 2537	The Pas, Manitoba	Crown sheet damaged due to low water.
Canadian National	February 20	C.N. 2731	Camrose, Alberta	Crown sheet damaged due to low water.
Canadian National	March 1	C.N. 2119	En route Grand Centre, Alta., to Calder, Alberta	Crown sheet damaged due to low water.
Canadian National	October 28	C.N. 321	Cape Bay Pit, Newfoundland	Crown sheet damaged due to low water.
Canadian National	December 9	C.N. 5616	Winnipeg, Manitoba	Crown sheet damaged due to low water.
Canadian National	December 29	C.N. 411	Kitimat, British Columbia	Crown sheet damaged due to low water.
Canadian Pacific	November 4	C.P. 5238	Empress, Alberta	Crown sheet damaged due to low water.

SUMMARIES

Boiler Explosions

Nil

Crown Sheets Damaged

Canadian National	6
Canadian Pacific	1
Total	<u>7</u>

STATEMENT No. 15—SUMMARY OF REPORTS ON FIRES IN FOREST SECTIONS ORIGINATING WITHIN 300 FEET OF TRACK
ALONG RAILWAY LINES UNDER THE JURISDICTION OF THE BOARD, SEASON OF 1954

REPORT OF THE COMMISSIONERS

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	Canadian National (Atlantic Region) (a)	Canadian National (Central Region)	Canadian National (Western Region)	Canadian Pacific (Eastern Region)	Canadian Pacific (Prairie Region)	Canadian Pacific (Pacific Region)	Miscel- laneous (b)	Totals
<i>Fires of Railway Origin—</i>								
<i>Number by Causes—</i>								
Locomotive, Class A fires.....	8	5	1	14	6	37	1	72
Locomotive, Class B fires.....	10	16	6	11	1	12	4	60
Locomotives, Class C fires.....		3		16	1		4	23
Employees, Class A fires.....	1	1		1			3	7
Employees, Class B fires.....	4	6	1	1	1		1	13
Employees, Class C fires.....		3					1	7
Fusees, Class A fires.....	1	1		1				4
Fusees, Class B fires.....								
Fusees, Class C fires.....								
Burning Smoking materials from trains, Class A.....	2	1	1	3				7
Burning Smoking materials from trains, Class B.....		2	5	1		2	1	11
Burning Smoking materials from trains, Class C.....								1
Total, Class A.....	12	8	2	19	6	39	4	90
Total, Class B.....	14	24	12	13	1	15	8	87
Total, Class C.....		6	1	17	1	3	4	31
Total.....	26	38	14	49	8	57	16	208
<i>Areas burned (acres)—</i>								
Young Forest Growth.....	7.00	56.33	0.50	370.00			19,609.30	20,043.38
Merchantable timber.....	7.50	5.10		10.00			12.00	35.85
Slashing or old burn.....	7.00	130.00	0.25	0.50			2.00	139.75
Other classes of land.....	9.80	246.45	19.25	249.00	15.63	199.50	21,056.45	21,796.08
Total.....	31.30	437.88	20.00	629.50	15.63	201.00	40,679.75	42,015.06
<i>Value of Property Destroyed—</i>								
Young Forest Growth.....	\$ 30.50	\$ 420.40	\$ 5.00	\$ 572.82	\$	\$ 5.00	\$ 39,865.00	\$ 40,898.72
Standing timber.....	22.00	22.00		150.00		37.05	1,011.00	1,242.05
Forest Products.....								
Other Property.....	6.00	216.50	.35	38.30		11.90	800.00	1,073.05
Total.....	58.50	658.90	5.35	761.12		53.95	41,676.00	43,213.82

STATEMENT No. 15—SUMMARY OF REPORTS ON FIRES IN FOREST SECTIONS ORIGINATING WITHIN 300 FEET OF TRACK
ALONG RAILWAY LINES UNDER THE JURISDICTION OF THE BOARD, SEASON OF 1954—*Concluded*

	Canadian National (Atlantic Region) (a)	Canadian National (Central Region)	Canadian National (Western Region)	Canadian Pacific (Eastern Region)	Canadian Pacific (Prairie Region)	Canadian Pacific (Pacific Region)	Miscel- laneous (b)	Totals
<i>Known Causes other than Railway—</i>								
Campers and Travellers, Class A.....	1	3		2		1		7
Campers and Travellers, Class B.....	1	5	3	3			2	14
Campers and Travellers, Class C.....		1			1	1		2
Settlers, Class A.....	1		1				1	2
Settlers, Class B.....								
Settlers, Class C.....	2				1	1		3
Other known causes, Class A.....	7	3	1	1		3		15
Other known causes, Class B.....								
Other known causes, Class C.....		3		2	2	1		12
Total, Class A.....	4	8	5	4		6		31
Total, Class B.....	8	1			2			3
Total, Class C.....								
Total.....	12	12	5	6		4	7	46
<i>Areas Burned (acres)—</i>								
Young forest growth.....	2-00	96-825					3-50	102-325
Merchantable timber.....								
Slashing or old burn.....	0-25			0-10			1-50	1-85
Other classes of land.....	9-125	2-325	18-95	6-00		255-25	2-80	294-450
Total.....	11-375	99-150	18-95	6-10		255-25	7-80	398-625
<i>Value of Property Destroyed—</i>								
Young forest growth.....	\$ 20-00	\$ 810-00	\$	\$	\$	\$	\$ 1-22	\$ 831-22
Standing timber.....								
Forest products.....		2-00	1,202-50			12-75	0-12	1,217-37
Other property.....								
Total.....	20-00	812-00	1,202-50			12-75	1-34	2,048-59
<i>Fires of Unknown Origin—</i>								
Class A.....	6	1	1	1		4	1	14
Class B.....	4		2			1		8
Class C.....			1				1	2
Total.....	10	1	4	1		5	3	24

Areas Burned (acres)—

Young forest growth.....									0.10
Merchantable timber.....									0.25
Slashing or old burn.....									104.12
Other classes of land.....									
Total.....									104.47
<i>Value of Property Destroyed—</i>									
Young forest growth.....									
Standing timber.....									60.00
Forest Products.....									
Other Property.....									270.50
Total.....									330.50

(a) Includes Province of Newfoundland.

(b) Includes Quebec North Shore and Labrador Railway; Northern Alberta Railways; Nipissing Central Railway; White Pass and Yukon Route; Esquimalt and Nanaimo Railway; Dominion Atlantic Railway; Sydney and Louisburg Railway; Cumberland Coal and Railway Company;

NOTE:—No fires were reported during 1954 as originating within 300 feet of track in forest sections along the following lines:—Quebec Central Railway; Algoma Central and Hudson Bay Railway.

Class A fires are those which cover an area less than one-fourth acre, regardless of amount of damage.

Class B fires are those which cover an area of one-fourth acre to ten acres.

Class C fires are those which cover an area over ten acres.

APPENDIX "F"

FEBRUARY 7, 1955.

Mr. E. R. HOPKINS,
Secretary,
Board of Transport Commissioners for Canada.

Submitted, herewith, is the annual report of the Bureau of Transportation Economics for the year ended December 31, 1954.

M. E. BURWASH,
Acting Director.

The fourth annual railway freight waybill study was conducted during 1953 and the results were summarized in the publication "Waybill Analysis Carload All—Rail Traffic", issued in June 1954. The sample consisted of 22,278 waybills covering 23,879 carload shipments of traffic between Canadian stations terminating on the test dates, January 14, April 15, July 15 and October 14, 1953. The traffic was analyzed by class and type of rate and by commodity groups for each originating rate territory and the published information showed the number of carloads, revenue, weight, ton miles, average revenue per ton mile, average haul per ton, car miles and average revenue per car mile. Special tabulations of the waybill data were made for a number of purposes and, in particular, to provide information for the class and commodity equalization cases.

The waybill study is being continued during 1954 but the basis has been changed from the four day sample used in previous years to a one per cent sample, using all carload waybills numbered 1 or ending in 01. The results of this analysis will be published during 1955.

Studies were made of the reporting forms for express companies and statistics pertaining to railway employees and their compensation; meetings were held in this connection with the Dominion Bureau of Statistics and the Railway Association of Canada. Changes and improvements in the reporting of certain railway statistics were agreed upon and put into effect.

Economic studies were conducted on the Grade Crossing Problem and in connection with cases before the Board, particularly the application to increase commutation fares. Reviews were made of the operating results of railways, telephone companies, water carriers and pipe lines making annual reports to the Board.

The traffic and earnings of Canadian railways declined during 1954. Preliminary estimates indicated a drop from 1953 of 12.3% in revenue freight ton miles and 3.6% in revenue passenger miles. Operating revenues were down \$110 million or 9.1%, while expenses were reduced by \$84 million or 7.7%; as a result, net operating revenue in 1954 is estimated at \$79,600,000 vis-a-vis

\$105,500,000 in 1953 and the operating ratio has risen from 91·3 to 92·7. A summary of railway statistics from 1940—1954 is tabulated below:

Year	Operating Revenues	Operating Expenses	Net Operating Revenue	Operat- ing Ratio	Revenue Freight Ton Miles	Revenue Passenger Miles
	\$	\$	\$		(000)	(000)
1940.....	429,142,659	335,287,503	93,855,156	78·1	37,898,196	2,176,468
1941.....	538,291,947	403,733,542	134,558,405	75·0	49,982,478	3,205,542
1942.....	663,610,570	455,783,584	177,826,986	73·2	56,153,953	4,989,296
1943.....	778,914,565	560,597,204	218,317,361	72·0	63,915,074	6,525,064
1944.....	796,636,786	634,774,021	161,862,765	79·7	65,928,078	6,873,188
1945.....	774,971,360	631,497,562	143,473,798	81·5	63,349,095	6,380,155
1946.....	718,501,764	623,529,472	94,972,292	86·8	55,310,308	4,648,558
1947.....	785,177,920	690,281,047	94,356,873	88·0	60,143,035	3,732,777
1948.....	875,832,290	808,126,455	67,705,835	92·3	59,080,323	3,477,273
1949.....	894,397,264	831,456,446	62,940,818	93·0	56,338,231	3,193,174
1950.....	958,985,751	833,726,562	125,259,189	86·9	55,537,900	2,816,154
1951.....	1,088,583,789	977,577,062	111,006,727	89·8	64,300,418	3,110,241
1952.....	1,172,158,665	1,057,186,304	114,972,361	90·2	68,430,417	3,151,261
1953.....	1,205,935,414	1,100,393,836	105,541,578	91·3	65,267,016	2,985,950
1954 (Est.).....	1,095,837,000	1,016,215,000	79,622,000	92·7	57,256,445	2,878,887

During 1954, field audits and survey reports were prepared for twenty air carriers. These carriers were located in British Columbia, the Maritimes and Southern Ontario and were much larger than the carriers audited during 1953. This latter group located in Alberta, Saskatchewan, the Yukon, Northern Ontario and Manitoba were covered in 1953, while carriers located in Quebec were audited in November and December 1952. A complete audit coverage of all carriers has, therefore, been completed in the last twenty-six months. Annual reviews were made of the operating and financial reports of 115 carriers not covered by the field survey and comments were prepared on ninety-eight applications for licences, transfers of ownership and airport expenditures.

Accounting studies were made of the various methods of financing, valuation of goodwill and valuation of A.T.B. licences. A number of rulings and interpretations were provided upon request of carriers. An analysis was made of the financial position of air carriers by Groups A, B, C and D as at December 31, 1953 and the annual operating results and rate of return on investment were compared with other industries.

Special analyses and studies were conducted in the fields of aerial spraying, helicopters, bilateral agreements between Canada and other countries, including the United States and the United Kingdom, airport zoning, airport charges, budworm spraying and the selection of aircraft for departmental use.

Recurrent reports on Canadian air carriers were prepared for the International Civil Aviation Organization and data were also provided on North-Atlantic crossings. The Airline Traffic Survey was again conducted during March and September in conjunction with the U. S. Civil Aeronautics Board.

The regular monthly and annual reports of licenced air carriers were processed and preliminary estimates have been prepared for the calendar year 1954. The number of passengers carried by Canadian Domestic and International air carriers in 1954 was 10% higher than in 1953 and mail volume increased by 30%; the increase in mail reflected the extension of airlift to a larger volume of first class mail, effective April 1, 1954. The volume of goods carried by air declined about 36% and was mainly associated with the transition from develop-

ment stage to production stage in projects such as those at Knob Lake and Kitimat. Total operating revenues were 4.4% higher in 1954 and expenses were 4.6% higher. Net operating revenues were maintained at about the same level as in 1953. The results of combined domestic and international operations are tabulated below for the calendar years 1947-54.

Year	Operating Revenues	Operating Expenses	Net Operating Revenues	Revenue Passengers	Pounds of Mail	Tons of Revenue Goods
	\$	\$	\$			
1947.....	32,317,385	34,666,250	Dr. 2,348,865	709,375	6,060,954	15,243
1948.....	44,573,440	47,155,842	Dr. 2,582,402	913,228	9,123,790	16,348
1949.....	50,276,053	53,922,938	Dr. 3,646,885	1,035,421	12,391,331	15,946
1950.....	57,408,418	57,559,037	Dr. 150,619	1,270,492	13,372,862	20,568
1951.....	77,075,210	69,805,907	7,269,303	1,585,888	14,279,502	41,035
1952.....	90,572,936	86,782,624	3,790,312	1,822,917	15,390,349	62,519
1953.....	104,483,097	103,204,242	1,278,855	2,119,850	17,173,670	82,868
1954 (Est.).....	109,100,362	107,975,369	1,124,993	2,334,006	22,257,025	52,756

Economic studies were made in connection with other subjects including the Canadian Overseas Telecommunication Corporation new head office building in Montreal, the North Sydney—Port Aux Basques Car Ferry and other ferry services in the Maritimes. A study and survey was made relative to highway transport regulation in connection with the Dominion Provincial Conference on this matter. Assistance was also provided to the Royal Commission on Agreed Charges. Economic and traffic studies on the St. Lawrence Seaway were undertaken in 1954 and work on these studies is continuing in 1955.

APPENDIX "G"

GENERAL ORDER No. 791

In the matter of the application of The Railway Association of Canada for approval of Supplement No. 2 to Regulations for the Transportation of Explosives and Other Dangerous Articles in Rail Freight and Rail Express Service:

File No. 1717-B

MONDAY, the 11th day of January, A.D. 1954

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Upon reading the submissions filed—

It is ordered

1. That the said Supplement No. 2 to Regulations for the Transportation of Explosives and Other Dangerous Articles in Rail Freight and Rail Express Service, on file with the Board under file No. 1717-B, be, and it is hereby, authorized for the observance of the railway companies subject to the jurisdiction of the Board which accept explosives and other dangerous articles for carriage.

2. That this General Order No. 791, shall come into force on the 31st day of March, 1954.

HUGH WARDROPE,
Assistant Chief Commissioner,
The Board of Transport Commissioners for Canada.

GENERAL ORDER No. 792

In the matter of the application of The Board of Trade of the City of Toronto, the Canadian Industrial Traffic League, Inc., the Canadian Manufacturers' Association, Inc., and the Hamilton Chamber of Commerce for approval of a short form of straight bill of lading for optional alternative use to the form of straight bill of lading approved by General Order No. 41, dated July 15, 1909, as amended by General Order No. 788 dated July 24, 1953:

File No. 3678-84

FRIDAY, the 22nd day of January, A.D. 1954.

HUGH WARDROPE, *Asst. Chief Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Upon reading the submissions filed and in pursuance of the powers conferred by section 353 of the Railway Act and of all other powers possessed by the Board in this behalf—

It is ordered

1. That approval be, and it is hereby, given to the Short Form of Straight Bill of Lading on file with the Board under file No. 3678-84 and marked "A", embodying the terms and conditions under which any traffic may be carried as set out in paragraph numbered 2 hereof, and to any Short Form of Straight Bill of Lading which embodies the said terms and conditions and is substantially in accordance with the said form "A", for use by railway companies subject to the jurisdiction of the Board as an alternative form of straight bill of lading to that approved by General Order No. 41.

2. "Received, subject to the classifications and tariffs in effect on the date of issue of this Original Bill of Lading

atfrom
(Station) (Date)

the goods described below, in apparent good order, except as noted (contents and conditions of contents of packages unknown), marked, consigned and destined as indicated below, which said carrier agrees to carry to its usual place of delivery at said destination if served by it, otherwise to deliver to another carrier on the route to said destination.

"It is mutually agreed, as to each carrier of said goods and as to each party at any time interested therein, that the carriage thereof is subject to all the terms, conditions and limitations (which are hereby incorporated by reference in this short form bill of lading and have the same force and effect as if the same were severally, fully and specifically set forth herein),

1. of the form of Straight Bill of Lading approved by the Board, of Transport Commissioners for Canada by General Order No. 41 dated July 15th, 1909, and set forth in the Canadian Freight Classification in effect on date hereof when said goods are carried under a contract of carriage issued by a rail carrier."
3. That the said Short Form shall at all times bear an inscription reading: "Approved by the Board of Transport Commissioners for Canada by General Order No. 792 for optional alternative use by railway companies subject to its jurisdiction."

4. That any or all of the terms and conditions set out in paragraph numbered 2 may be placed on the face or on the reverse side of the forms of bill of lading hereby approved, but when they are placed on the reverse side the face of the form shall contain, in prominent type, the inscription:

“subject to all the terms, conditions and limitations incorporated by reference as shown on the back of this bill.”

5. That the said Short Form marked “A” be set forth in full in the Canadian Freight Classification not later than Febraury 28, 1954.

HUGH WARDROPE,

Assistant Chief Commissioner.

The Board of Transport Commissioners for Canada.

GENERAL ORDER No. 793

In the matter of fences on highway approaches to railway crossings:

File No. 30245

WEDNESDAY, the 31st day of March, A.D. 1954.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Upon reading the submissions filed—

It is ordered that General Order No. 501, dated July 19, 1932, be, and it is hereby, amended by striking out paragraph (a) of regulation No. 6 therein and substituting therefor for the following paragraph:

“(a) A strong and substantial wire fence approximately four feet six inches high, with a board one and one-half inches by six inches fixed to the fence posts so that the top of the board is not more than three feet above the surface of the road, shall be erected on each side of every approach to a rural railway crossing over a highway where the height is five feet or more above the level of the adjacent ground, leaving always a clear road surface of at least twenty feet in width; provided, however, that the foregoing requirement shall not apply until March 31st, 1957, to crossings where protection fences in existence on March 31st, 1954, and complying with the Railway Act or any previous order of the Board relating to such fences continue to be maintained in accordance with section 269 of the Railway Act, and such fences shall have the approval of the Board until but not after March 31st, 1957.”

HUGH WARDROPE,

Assistant Chief Commissioner,

The Board of Transport Commissioners for Canada.

GENERAL ORDER No. 794

In the matter of rules covering the preparation of accounts to apply to joint projects undertaken under Order of the Board:

File No. 11026-74

THURSDAY, the 6th day of May, A.D. 1954.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

It is ordered that the rules covering the preparation of accounts and rates of rental of railway-owned equipment to apply to joint projects undertaken under Order of the Board by railway companies within the legislative authority of the Dominion of Canada be, and they are hereby, approved and adopted, namely:

A joint project shall be considered to mean a project to the cost of which the railway and/or Board contributes.

The preparation of accounts shall be in general, as herein provided, or as may be determined from time to time by the Board.

Labour

(a) Labour Cost

Labour cost shall include a proportion of wages allowed on statutory holidays to employees entitled to such, and a proportion of wages allowed for vacation pay for all employees under the terms of wage agreements, and shall be calculated as follows:

- i. To the wages of foremen entitled to wages for statutory holidays shall be added one per cent.
- ii. To the wages of employees entitled to three weeks vacation with pay shall be added six per cent.
- iii. To the wages of all other employees entitled to vacation with pay shall be added four per cent.

(b) Surcharges

To all items of labour cost there shall be added surcharges to cover the following:

	<i>Transportation Accounts</i>	<i>Construction and Maintenance Accounts</i>
Supervision and Accounting.....	5%	—
Supervision, Accounting and use of tools.....	—	10%
Pensions.....	5%	5%
Workmen's Compensation.....	2%	2%
Unemployment Insurance.....	1%	1%

The surcharges covering supervision, accounting and use of small tools, are in lieu of the cost of all salary and expense of any general or supervising officer, or other person regularly employed, having supervision over any railway operation or maintenance, including all overhead office expense, cost of draughting-room, accessories, etc., all stenographic or clerical forces employed in head, divisional, or district offices, handling matters pertaining to the work, all charges for minor equipment and small tools.

(c) Special Engineering Services

A direct charge shall be allowed for engineering services when it is necessary for their employment continuously and exclusively on the particular work, plus the surcharges herein provided under "construction and maintenance."

Under this item it will be proper to charge the wages of office engineers and draughtsmen assigned to the work in the preparation of plans after the issue of the Board's Order, plus the surcharges herein provided under "construction and maintenance." "Assigned" means continuous service for one day, or more, solely in connection with the particular project, but does not permit accumulation of short intermittent periods to equal one day.

Workmen's Compensation

No award in payment of compensation claims for injury or death will be allowed.

Transportation of Men

No transportation charges for railway labour or employees will be allowed, except extraordinary transportation, which may be considered by the Board in each special case.

Material

To the invoice price (including foreign freight, customs duty, sales tax and exchange), of all items of materials and supplies used, add 15 per cent to cover supervision, store expense, inspection, accounting, handling and transportation over the billing carrier's line to point of use. When material is hauled over billing carrier's line in excess of 250 miles, a further allowance of 10 miles per net ton mile for such excess mileage shall be included, in addition to the 15 per cent allowance. Proper credit shall be allowed for salvage materials, less 15 per cent to cover expense of supervision, inspection, store expense, accounting, handling and transportation.

Contract Work

To the contract price of work done by an outside contractor there may be added a premium to cover supervision, accounting and inspection of 3 per cent on amounts up to \$50,000.00; of 2 per cent on the excess of \$50,000.00 up to \$100,000.00; and of 1 per cent on the excess over \$100,000.00.

Land Purchases and Damages

To the purchase price of land and property damages, registration fees, special taxes, fees paid into court, and commissions paid for purchase settlement, there may be added a premium to cover supervision, accounting, etc., of 3 per cent, on amounts up to \$50,000.00; of 2 per cent on the excess of \$50,000.00 up to \$100,000.00; and of one per cent on the excess over \$100,000.00.

Rental of Railway-Owned Equipment

Rental of railway-owned equipment, when used in joint project work, shall be in accordance with Schedule "A", Circular No. 109 of the Railway Association of Canada. No percentage allowance shall be added to equipment rental.

Schedule "A", indicating description of equipment and rates per day, is attached hereto. The rates in the foregoing Schedule are for each 24-hour period, including Sundays and holidays or fraction thereof, and do not include wages and expenses of employees in charge of equipment, supplies, fuel, or cost of transporting equipment, which shall be charged in addition to rental.

Work Train

Flat rate, including rental of one locomotive (all sizes and types), caboose, all repairs, fuel and supplies, engine and train or switch crew wages and supplies, all engine-house expense—\$18.50 per hour, or fraction thereof—(for additional equipment rental, see Schedule attached), with the addition of a work train service trackage charge of \$1.50 per train mile; minimum trackage charge—\$10.00.

Transportation of Equipment

Charges at the following rates for transportation of cars, cars loaded with roadway machines, and for other miscellaneous equipment, shall be made from home station or previous job to point of use, also for return movement, if moved to home station or point to be stored. (If moved to another job, no charge shall be made for return movement):

In Revenue Trains

- (a) Cars and work equipment loaded on cars—6c. per unit per mile.
Minimum—\$6.00 per unit.
- (b) Other work equipment transported on own wheels—10c. per unit per mile.
Minimum—\$10.00 per unit.

In Work Trains—Work train rate as provided.

And it is further ordered that General Orders Nos. 754 and 787 be, and they are hereby, rescinded.

HUGH WARDROPE,
*Assistant Chief Commissioner,
The Board of Transport Commissioners for Canada.*

SCHEDULE "A"

Item	Description	Rates per day Schedule "A"
<i>Motive Power—</i>		
1	Yard (Steam) per 1,000 lbs. Tractive Effort.....	\$ 1.44
2	Yard (Diesel) per 100 Horse Power available for traction purposes only..	6.37
3	Train (Steam) per 1,000 lbs. Tractive Effort.....	1.87
<i>Revenue Equipment—</i>		
6	Freight Cars.....	Per diem rate
7	Refrigerator Cars All Steel.....	7.00
8	—Steel Centre Sills, SUF also SF.....	4.00
9	Caboose.....	2.00
<i>Work Equipment (Mounted on MCB trucks or floating)—</i>		
15	Cars—Air Dump—30 cubic yards and over.....	5.50
16	“ —Air Dump—29 cubic yards and under.....	5.00
17	“ —Boarding or Kitchen, converted passenger.....	4.00
18	“ —Bunk, Kitchen, Dining, Rail, Ice, Tool, Cabin Idler, Cinder, etc., converted freight.....	2.50
19	“ —Dynamometer.....	90.00
20	“ —Generator—10 car capacity.....	12.00
21	“ —Rule— Instruction.....	9.00
22	“ —Water Transport, including converted tender.....	3.50
<i>Cranes and Pile Drivers—</i>		
23	Crane—Steam—250 tons.....	110.00
24	200 tons.....	60.00
25	100–199 tons.....	35.00
26	Crane—Steam— 30– 99 tons.....	23.00
27	— 10– 29 tons.....	16.00
28	under 10 tons (include rail loader).....	8.00
29	Diesel—10–29 tons.....	70.00
30	under 10 tons.....	20.00
31	Crane Pile Driver—Steam.....	26.00
32	Pile Driver—Steam—self-propelled.....	45.00
33	non self-propelled.....	17.00
34	floating.....	4.00
35	Fire Fighting Tank.....	9.00
36	Flanger (and scraper).....	7.50
37	Lidgerwood—Rapid Unloader.....	13.00
38	Ballast Plow, extra.....	3.00
39	Snow Loader—Barber-Greene.....	100.00
40	Snow Melter—Barber-Greene or Bros.....	70.00
41	Snow Plow—Rotary.....	90.00
42	Snow Plow—with wings and drop points.....	19.00
43	others.....	6.50
<i>Spreaders with attachments—</i>		
44	Steel or SUF.....	15.00
45	Ditch Line Contour, extra.....	4.00
46	Wood (include Ballast Trimmer).....	6.00
<i>Steam shovels (include Steam Ditchers)—</i>		
47	3 cubic yards and over.....	40.00
48	Under 3 cubic yards.....	22.00
<i>Miscellaneous Equipment—</i>		
60	Auto Trucks—over 2½ tons.....	11.00
61	“ over 1–2½ tons.....	7.00
62	“ 1 ton or less.....	5.00
63	Car Loader ‘Clark’.....	4.50
64	Crane—self-propelled truck or tractor—5 tons or less.....	8.00
65	Tractor—gas or battery driven.....	4.00
<i>Roadway Machines—</i>		
75	Small Roadway Machines (See note on Page 2).....	2.00
76	Small Roadway Machines, Other (See note on Page 2).....	1.00
<i>Air Equipment—for attachments see items 75, 76 and 80</i>		
77	Compressor—diesel operated—315 cubic feet.....	25.00
78	gas operated—160–200 cubic feet.....	8.50
79	gas operated—less than 160 cubic feet.....	6.00
80	Cement gun attachment.....	4.00

Item	Description	Rates per day Schedule "A"
<i>Roadway Machines—Concluded</i>		
Ballasting Equipment—		
81	Ballaster—Gas or air-operated—complete with tie-tamping bars.....	\$ 24.00
82	Ballast Discer—gas operated.....	4.50
83	Ballast Scarifier—gas operated.....	45.00
84	Jack—Power Track—gas operated.....	3.50
85	Tie Tamper—4 Tool Hi Speed complete.....	4.50
Combination Crane, Shovel and Dragline—Crawler Mounted—Diesel Operated:		
<i>Dipper and Shovel—</i>		
86	Over 1½ cu. yd.—2 cu. yd.	
87	Over ¾ cu. yd.—1½ cu. yd.	
88	¾ cubic yard or less	
89	Concrete Mixers—Gas operated—over ¼ cubic yard.....	6.00
90	—Gas operated—¼ cubic yard or less.....	2.50
<i>Clam and Dragline Buckets—</i>		
91	Over 1 cu. yd.—1½ cu. yd.....	60.00
92	Over ½ cu. yd.—1 cu. yd.....	45.00
93	½ cubic yard or less.....	40.00
94	Cranes and Hoists (Power Driven)	
95	Burro.....	35.00
96	Tractor—gas driven—12 tons.....	13.00
97	Gas driven—Telescopic swing boom—19/31 ft. radius.....	15.00
98	Koehring cruiser 36" magnet capacity 15,000 lbs. 12' radius.....	20.00
99	Gas driven—5,000 lbs. with magnet.....	11.00
100	Gas driven—3,000-5,000 lbs.....	7.50
101	Others, including hand operated.....	3.50
102	Generator, Portable Electric.....	3.00
103	Post Hole Digger—Diesel.....	17.00
104	Pumps—gas or steam driven (exclude portable).....	6.00
105	Rail End Hardening Unit.....	4.00
Rail Laying Equipment:		
106	Power Wrench—gas operated.....	4.50
107	Rail Layer, Power—gas operated.....	8.00
108	Spike Driver or Puller—gas operated.....	4.50
109	Tie adzer.....	4.00
110	Road Roller—gas operated—3-4 tons.....	7.50
111	Snow Blower—Hydraulic Wings and Railroad Wheels—	
112	Gas driven—Mounted on Auto Trucks.....	60.00
113	Snow Loader and Blower—Gas driven.....	21.00
Tractor, Caterpillar—With Bulldozer:		
114	Belt Horsepower—50 to 84.....	15.00
115	Belt Horsepower—less than 50.....	11.00
116	Scraper attachment—10 cubic yards.....	6.00
117	Weed Burner—Old Style.....	4.00
118	Weed Mower—Gas operated.....	5.50
119	Welder—Single Arc—Gas operated.....	7.00
120	Welder—Single Arc—Gas operated with Grinder Car Unit.....	9.00

NOTES

Small Roadway Machines

Grinder, Rail	Paving Compactor
Paint Sprayer	Rail Layer, Hand
Pavement Breaker	

Small Roadway Machines, Other

Air Equipment Attachments:	Other Machines:
Concrete Vibrator	Bonder, Rail
Drill or Reamer	Car, Track Motor
Grinder and Surfacers	Car, Trailer Dump
Rivet or Chipping Hammer	Jack, Geared
Rock Drill	Pump, Portable
Sand Blast	Rail Slotter
Saw, Chain Link	Saw Power Rail
Tie Tamper, Unit	Skilsaw, Electric
	Tie Tamper, Gas
	Floor Sander

Abbreviations used: SF—Steel Frame. SUF—Steel Underframe.

GENERAL ORDER No. 795

In the matter of the Regulations for the Transportation of Explosives and Other Dangerous Articles in Rail Freight and Rail Express Service including Specifications for Shipping Containers:

File No. 1717B

THURSDAY, the 6th day of May, A.D. 1954.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Upon the recommendation of the Director of Operation of the Board—

It is ordered that the said Regulations be, and they are hereby, amended by cancelling sections 1 to 13 of specification 41 appearing on page 23 of Supplement No. 2 to the Board's Regulations for the Transportation of Explosives and Other Dangerous Articles in Rail Freight and Rail Express Service including Specifications for Shipping Containers, issued February 1, 1954, and substituting the following:

SPECIFICATION 41

INSIDE CONTAINERS

Non-refillable seamless or welded or
brazed steel cylinders.

1. Compliance. (a) Required in all details.

2. Type, size, and service pressure. (a) Type and size. Must be seamless, welded, or brazed (brazing material must have a melting point of not less than 1000°F.). The maximum water capacity of cylinders in this class shall not exceed 1.44 pounds or 40 cubic inches. Longitudinal seams are prohibited, except that containers constructed from longitudinally welded steel tubing are authorized provided that certification is made by the tubing manufacturer that the tubing has been pressure tested to a fiber stress of 24,000 pounds per square inch as calculated by the formula:

$$P = \frac{24000(D^2 - d^2)}{1.3D^2 + 0.4d^2}$$

where

P is the pressure required for pressure testing of tubing by the tubing manufacturer.

(b) Service pressure. Service pressure must be 240 pounds per square inch.

3. Inspection by whom and where. By competent and independent Inspector approved by the Board of Transport Commissioners for Canada and the Bureau of Explosives; for cylinders not made in the Dominion of Canada, the United Kingdom, or the United States of America, the chemical analyses and tests as specified, to be made within the limits of the Dominion of Canada.

Inspectors of the manufacturer are authorized only on approval of the Board.

4. Duties of inspector. (a) Inspect all material and reject any not complying requirements.

(b) Verify compliance with the requirements of paragraph 5 of this specification by submitting copy of certified chemical analysis obtained from the steel manufacturer for each heat of steel (ladle analysis acceptable); or, if such evidence is lacking, then a sample from each coil or sheet must be analysed and results submitted.

(c) Verify compliance of cylinders with all requirements including markings; inspect inside before closing in both ends; verify heat treatment as proper; select samples for all tests and for check chemical analyses; witness all tests; verify threads by gauge; report volumetric capacity (see report form) and minimum thickness of wall noted.

(d) Render complete report (paragraph 19) to purchaser cylinder maker, the Bureau of Explosives and the Board of Transport Commissioners for Canada.

5. Steel. (a) Open-hearth or electric steel of uniform quality. Content per cent for the following not over: Carbon 0.150; phosphorus, 0.045; sulphur 0.055.

6. Identification of material. (a) Required; any suitable method.

7. Defects. (a) Material with seams, cracks, laminations, or other injurious defects, not authorized.

8. Manufacture. (a) By proper appliances and methods; dirt and scale to be removed as necessary to afford proper inspection; no defect acceptable that is likely to weaken the finished cylinder appreciably; reasonably smooth and uniform surface finish required. Seams must be as follows:

(1) Circumferential seams. Except as provided in subparagraph (2) of this paragraph by welding or by brazing. Heads attached by brazing must have a driving fit with the shell, unless the shell is crimped, swedged, or curled over the skirt or flange of the head, and be thoroughly brazed until complete penetration by the brazing material of the brazed joint is secured. Depth of brazing from end of shell must be at least four times the thickness of shell metal.

(2) A container of two hemispherical heads, each having an integral tangential cylindrical skirt portion assembled so that the two cylindrical skirt portions telescope one within the other is authorized but must meet the following additional requirements for the skirt portions; one be a driving fit within the other; they be of equal length and telescoped for their full length; the length of the overlap be not less than 8 nor more than 10 times the thickness of the thinner of the two skirts; the overlapping joint be brazed (not welded) so as to get complete penetration for the full length of the joint.

(9) Wall thickness. (a) The wall stress at 720 pounds per square inch shall not exceed 24,000 pounds per square inch, except that for longitudinally welded steel tubing the stress shall not exceed 20,400 pounds per square inch. The minimum wall for any cylinder shall be 0.032 inch. For the container authorized in paragraph 8(a) (2) the wall thickness of the cylinder shall be taken as the sum of the thickness of the two skirts (without allowance for the brazing material between).

(b) Calculation must be made by the formula:

$$S = \frac{720(1.3D^2 + 0.4d^2)}{D^2 - d^2}$$

where

S = wall stress in pounds per square inch;

D = outside diameter in inches;

d = inside diameter in inches.

(c) Calculation for thickness of hemispherical heads of containers authorized in paragraph 8(a) (2) must be made by the formula:

$$S = \frac{720D}{4tC}$$

where

t = thickness in inches;

C = 0.85 (design factor)

S and D have same significance as in paragraph (b) of this section. The minimum thickness of the head or skirt shall be 0.032 inch. The thickness of the skirt shall be not less than the thickness of the head.

10. Heat treatment. (a) Body and heads must be uniformly and properly heat treated prior to tests.

11. Openings in cylinders. (a) Each opening in cylinder, except those for safety devices, must be provided with a fitting, boss, or pad, securely attached to cylinder by brazing or by welding or by threads. If threads are used, they must comply with the following:

(1) Threads must be clean cut, even, without checks, and tapped to gauge.

(2) Taper threads to be of length not less than as specified for American Standard taper pipe threads.

(3) Straight threads, having at least 4 engaged threads to have tight fit, and calculated shear strength at least 10 times the test pressure of the cylinder; gaskets required, adequate to prevent leakage.

(b) Closure of fitting, boss or pad, must be adequate to prevent leakage.

12. Safety devices. (a) Devices must be as required by the Board of Transport Commissioners regulations that apply. (See sec. 73.34 (f) and 73.301 (i)).

13. Pressure tests. (a) Each cylinder produced shall be tested at an internal pressure¹ of at least 240 pounds per square inch and not exceeding 720 pounds per square inch, held for at least 30 seconds, and shall show no leak or other defect when inspected by suitable means.

(b) Or, each completed container filled for shipment must be heated until content reaches a minimum temperature of 130°F.; without evidence of leakage, distortion or other defect.

(c) One out of each 3,000 cylinders or less successively produced per day shall be hydrostatically tested to destruction and must not burst below 1,440 pounds per square inch. Each such 3,000 cylinders or less successively produced per day shall constitute a lot and if the test cylinder shall fail, then the entire lot must be rejected. All cylinders constituting a lot shall be of identical size, design, construction, heat treatment, finish and quality.

14. Flattening test. (a) Between knife edges, wedge shaped 60° angle, rounded to $\frac{1}{2}$ inch radius; test 1 cylinder taken at random out of each lot of 3,000 or less successively produced per day, after pressure test. This flattening test is required and the test cylinder shall not have cracked when the outer surfaces of the walls are apart not more than a distance of 6 times the thickness of such walls.

15. Rejected cylinders. (a) Reheat treatment authorized for lots failing to meet the requirements of sec. 14; such lots of cylinders after this treatment must pass all prescribed tests.

¹ Warning—Where air or gas pressure is used for testing, means designed to protect personnel is recommended.

16. Repair of brazed and welded seams. (a) Only repair of brazed seams by brazing and welded seams by welding is authorized, provided such cylinders are retested and pass the tests prescribed in sec. 13 (a).

17. Marking. (a) Marking on each cylinder by embossing plainly and permanently on valve end of cylinder before heat-treatment, the marks BTC-41 and registered symbol of manufacturer.

(1) Other marks as prescribed in subparagraph (2) of this paragraph must be shown on a permanently attached name plate or by printing or decalcomania, provided that such markings are water-proofed and adherent and not easily impaired when subject to water immersion and weathering under service conditions, or are coated over with a water-insoluble transparent lacquer; except that cylinders having brazed lapped circumferential seam may, after having been tested in accordance with secs. 13 and 14 of this specification, have marks permanently stamped into metal of this seam, provided that such marks do not exceed 0.015" in depth.

(2) Inspector's official mark; lot number; date of test (such as 5-50 for May 1950); the words "Illegal to refill and transport".

18. Size of embossed marks. (a) At least $\frac{1}{4}$ inch high.

19. Inspector's reports. (a) Required to be clear, legible and in following form:

(Place)

(Date)

Steel Gas Cylinders

Manufactured for.....Company

Location at.....

Manufactured by.....Company

Location at.....

Consigned to.....Company

Location at.....

Quantity.....

Size.....inches outside diameter by.....inches long

Identification marks embossed on cylinders are:

Specification BTC-41.

Identifying symbols (registered).....

Other marks on cylinder are:

Inspector's official mark.....

Lot number.....

Test date.....

Illegal to refill and transport.....

These cylinders were made by process of.....

The steel used was identified by heat or analysis numbers as shown on the "Record of Chemical Analysis of Steel for Cylinders" attached hereto.

The steel used was verified as to chemical analysis and record thereof is attached hereto.

All material was inspected and each cylinder was inspected both before and after closing; all accepted material and cylinders were found free from seams, cracks, laminations, and other defects which might prove injurious to the strength of the cylinder. The processes of manufacture and heat treatment were supervised and found to be efficient and satisfactory.

A test cylinder of each lot was measured and had a minimum wall thickness and volumetric capacity as shown in table below:

Date of test	Lot No.	Number in lot	Minimum wall thickness (inches)	Volumetric capacity (cubic inches or pounds of water)
.....
.....
.....
.....

Such threads as were inspected and found to be clean cut, of proper length, and correct as to gauge.

One finished cylinder out of each lot was taken at random and burst by interior hydrostatic pressure with the following results:

Date of test	Lot No.	Pressure at which cylinder ruptured (pounds per square inch)
.....
.....
.....
.....

Each and every cylinder was subjected to an interior pressure of 240 pounds per square inch or was heated until contents reached a minimum temperature of 130°F. and showed no leak or other defect.

Hydrostatic tests, pressure tests, flattening tests, and other tests, as prescribed in Specification No. BTC-41 were made in the presence of the inspector and all material and cylinders were found to be in compliance with the requirements of that specification.

I hereby certify that all of these cylinders proved satisfactory in every way and comply with the requirements of Board of Transport Commissioners for Canada Specification No. 41 except as follows:

Exceptions

.....

.....

.....

(Signed)

Inspector.

GENERAL ORDER No. 796

In the matter of the application of the Manitoba Transportation Commission for an Order amending Appendix "C" of General Order No. 581:

File No. 40994

THURSDAY, the 3rd day of June, A.D. 1954.

HUGH WARDROPE, *Asst. Chief Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Upon reading the submissions filed—

It is ordered that Appendix "C" of General Order No. 581, be, and it is hereby, amended by striking out the words "Winnipeg Board of Trade" in the said Appendix and substituting therefor the words "Manitoba Transportation Commission."

HUGH WARDROPE,

Assistant Chief Commissioner,

The Board of Transport Commissioners for Canada.

GENERAL ORDER No. 797

In the matter of the application of Canadian Freight Association for approval of a modification of the forms of bill of lading approved by General Order No. 41, dated July 15, 1909:

File No. 3678

WEDNESDAY, the 9th day of June, A.D. 1954.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Upon reading the submissions filed—

It is ordered that General Order No. 41, dated July 15, 1909, be, and it is hereby, amended by deleting paragraph numbered 1 thereof and substituting the following:

"1. *It is ordered* that the two forms of bill of lading, for use in Canada, namely, that for consignments 'to order', and that for so termed 'straight' consignments, attached hereto and marked 'A' and 'B', with the deletion therefrom of the words and figures 'The Rate of Freight from..... to s in Cents per 100 Lbs.' and the references to classes immediately following the said words and figures, be, and they are hereby, approved".

HUGH WARDROPE,

Assistant Chief Commissioner,

The Board of Transport Commissioners for Canada.

GENERAL ORDER No. 798

In the matter of Uniform Rules governing the determination of visual acuity, colour perception, and hearing of railway employees:

File No. 1750-17

THURSDAY, the 17th day of June, A.D. 1954.

HUGH WARDROPE, *Asst. Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

It is ordered that the railway companies subject to the jurisdiction of the Board adopt and put into force the following rules:

UNIFORM RULES GOVERNING THE DETERMINATION OF VISUAL ACUITY, COLOUR PERCEPTION, AND HEARING OF RAILWAY EMPLOYEES

1. Each person selected to make examinations must first pass the examination under an oculist or optometrist designated by the company, such oculist or optometrist then to instruct candidate on the use of the instruments requisite for such examination and certify to candidate's qualifications as an examiner.

2. Each examiner shall be provided with:

- (a) a set of Snellens test types, with at least three cards of each size of letters shown in different combinations (a single line on each card) for testing acuteness of vision;
- (b) an Association of American Railroads standard reading card for testing near vision;
- (c) a Holmgren or Thompson colour-selection test; Pseudo-Isochromatic Chart, and instructions for use of same;
- (d) a "Williams" lantern, or one similarly constructed, and instructions for use of same;
- (e) a card or shade for testing each eye separately;
- (f) a trial frame, with one pair of plus two diopter lenses, one pair of plus one diopter lenses and one pair of plane lenses and one opaque disc; and
- (g) examination forms and certificates.

3. Examinations shall be conducted in a well lighted room or car in which a distance of twenty feet can be measured from test type, or face of lantern to candidate. Shades or curtains shall be provided in order to darken room or car for lantern test.

4. The test type should be in good light, the bottom of the card about on a level with the eye. Place the candidate twenty feet from the card, and ask him to read the type with both eyes open, then cover one of his eyes with a card or shade held firmly against the nose, taking care not to let it press against the eyeball, and instruct him to read with the other eye such type as may be indicated. Each eye shall be tested separately.

5. (a) Examiners are reminded that the normal-eyed should read the twenty-foot (or 6 metre) letters at 20 feet, in which case the visual power should be expressed by the fraction 20-20. Should a candidate be unable to read the twenty-foot letters at 20 feet, but be able to read the 30-foot letters

the result should be indicated by the fraction 20-30. If he can only read the forty-foot letters record should be 20-40 etc.

(b) Candidate must be able to read the test print in paragraph 2 of the standard reading card at a distance of from fourteen to eighteen inches to pass the near vision test. Candidates, except applicants under classes A, B and C, may use glasses for this test. Further tests should be made by having the candidate read written train orders.

6. (a) In testing vision, colour perception, and hearing only those concerned in such test, other than the examiner and candidate shall be permitted to be present.

(b) Where the word "applicant" is used in these rules it applies to a person who is subject to the ENTRANCE TO SERVICE requirements.

(c) Where the word "candidate" is used it applies to anyone taking examination including those referred to as "applicants".

7. (a) The result of each examination must be shown on a prescribed form, a record to be preserved for reference by the examiner, and copies as required to be forwarded to officers concerned for inspection, record and file.

(b) Officers concerned must keep proper check, to ensure re-examination of all employees when due, must see that all employees who should be examined by an oculist or optometrist under the rules are required to take such examinations promptly, and that glasses provided are approved by those designated under clause 13.

(c) Examiners will, upon request of candidate, issue to each person who passes a satisfactory examination, a certificate to that effect, and will if desired furnish employees who fail to pass, a written statement of their rating and cause of failure.

(d) Local officers must report to the (each railway to fill in officer to whom report shall be made) all cases wherein an employee appears to be disqualified, giving full information as to result of examination.

8. All applicants for entrance to service under the standards specified (except for classes E and F) must take such examination without the use of glasses for distant vision.

9. When the distant vision of an employee can be improved appreciably by the aid of glasses he must wear them while on duty.

10. An employee who required glasses to bring distant vision up to standard specified must wear them while on duty and must carry an extra pair, which will bring his vision up to standard specified, and will be examined with each pair.

11. All employees, while on duty, excepting those indoors, who are required to wear glasses for distant vision must use the rimmed spectacle or goggle form, and those indoors should preferably use the rimmed spectacle form. This paragraph applies to new glasses and replacements.

12. Automobile goggles, fitted with glass which will not injuriously affect either acuteness of vision or colour perception, may be used by employees in engine or freight train service for the protection of the eyes.

The use of authorized safety spectacles or goggles which will afford protection against flying particles, glare, or both, and which will not affect acuteness of vision or colour perception is recommended.

13. Glasses required to bring either near or distant vision up to standards specified must be approved by the oculist, optometrist, or examiner designated by the company.

14. Applicants having a squint, or who are cross-eyed, or otherwise not normal-eyed, shall not be accepted. Examiners who suspect a case of double vision should use some simple test to determine its presence.

15. An employee who fails to pass acuity standard specified, will not be disqualified from service without an examination by an oculist designated by the company. An employee failing to pass indoor tests for acuteness of vision, shall, upon request, be examined by a committee of two, one of whom will be appointed by the General Manager or other designated officer of the Company and the other by the General Chairman concerned. This committee will give due consideration to border-line cases respecting visual acuity and recommend the service, if available, to which the employee may be assigned.

16. When promotion standard is not specified, an employee applying for transfer from one kind of service to another, or being promoted, must pass entrance examinations of class he desires to enter.

EXCEPTIONS

(a) Those who have been injured in service, or who have been in continuous service for at least two years, may be transferred to positions of switch tenders and occupations under Class F;

(b) those who have been transferred from one position to another under Class E, upon passing the respective re-examination standards.

17. Employees who revert from class D, to class C by direction, or consent of the Company, will be re-examined under class D standard.

18. Applicants for entrance to service in classes A and C will undergo additional test to ascertain if far-sighted to the extent of two diopters. Examiners will use combinations in trial frames representing plane and convex lenses, varying the tests so that the candidate's former experience or knowledge obtained from others may be valueless. If an applicant reads without difficulty the twenty-foot letters at 20 feet through convex lenses of 2D he will not be considered satisfactory.

19. Examiner shall examine the colour perception of each eye separately using such equipment and standards of tests as are approved by the Board. These shall be made by a lantern designed for this purpose, by the Holmgren or Thompson Worsteds or the Pseudo-Isochromatic method. The latter shall consist of 18 plates in book form as in effect at date of this Order. Defective red-green vision shall be indicated when incorrect responses are given to five or more plates. Candidates upon re-examination or for promotion will not be disqualified if they pass any two of these tests.

20. (a) An applicant who has defective colour perception shall not be accepted into service in any of the classes specified in the Standards of Visual Acuity.

(b) An employee who has defective colour perception shall not be retained in any of the classes specified in the Standards of Visual Acuity except in positions to be designated by the company where he will not be required to use or determine the colour of signals.

21. No employees shall be disqualified from service by reason of defective colour sense without an examination by an oculist designated by the Company.

22. In examination of hearing (which shall be with human voice) each ear shall be tested separately, and the candidate should not see the movement of the examiner's lips.

23. An applicant for entrance to service must be able to hear and repeat an ordinary conversation, or names and numbers, spoken in a conversational

tone, at a distance of 20 feet, in which case the hearing shall be expressed by the fraction 20-20. When conversation can be heard at only ten feet, the hearing should be expressed by the fraction 10-20. If indicated a test of hearing by the use of the audiometer may be carried out.

24. Employees will not be retained in any of the classes specified if hearing is less than 15-20 in one ear and 5-20 in the other, or less than 10-20 in each ear, except in positions to be designated by the company, where the defect will not prevent the proper and safe performance of their duties.

25. Employees included in the Standards of Visual Acuity and Hearing must be re-examined as follows:

(a) All classes as nearly as possible within two years after the last previous examination;

(b) Class A employees who have less than 20-40 vision in either eye with glasses;

Class C employees who have less than 20-50 vision in either eye with glasses, and

All employees who have less than 20-70 vision in either eye with glasses,

must be examined annually.

Any employee may be re-examined at such periods as may be designated by the Company's Chief Medical Officer or Chief Visual Examiner.

(c) After any accident in which they are concerned, which may have been caused by defective vision, colour sense or hearing;

(d) After any serious accident or illness, or severe inflammation of the eye or eyelid;

(e) Before promotion. This does not mean that a freight conductor should be examined previous to his appointment as passenger conductor, or an engineman in freight service previous to appointment in passenger service, but that freight brakemen shall be examined before being promoted to freight conductor, and firemen being promoted to enginemen.

(f) All classes to be re-examined for hearing as nearly as possible within two years' time after the last previous examination, or more frequently if deemed necessary by the Company's Chief Medical Officer or Chief Visual Examiner.

26. (a) Employees in classes A and B who fail to qualify after having been examined by a company oculist as provided shall, upon request, be given an outside or field test, using standard operating signals as may be agreed by the committee provided for in these rules.

(b) In making the tests candidates shall approach the signals from a point where they are unable to see them, and not be credited with being able to read signals unless they can promptly call changes as made in position of arms and colour of lights.

(c) The tests with and without glasses shall be made at distances varying from 5,000 to 200 feet. These tests should be with each eye separately and also with combined vision.

(d) The Committee shall record the different distances at which the employee being examined can promptly see the signals, and shall forward this information, together with their recommendations as to the service to which he may be assigned, to the General Superintendent.

STANDARDS OF VISUAL ACUITY

Class A

Enginemen, Motormen, Firemen, Motormen's Helpers, Road Service.

ENTRANCE TO SERVICE

Not less than 20-20 in each eye tested separately without glasses. Must not accept a plus 2D lens, nor use glasses for near vision.

PROMOTION

20-30 combined, with or without glasses, provided there is 20-30 in one eye and not less than 20-40 in the other eye, with or without glasses.

RE-EXAMINATION

20-30 combined, with or without glasses, provided there is 20-30 in one eye and not less than 20-50 in the other eye, with or without glasses.

Class B

Enginemen, Motormen, Firemen, Outside Hostlers, Motormen's Helpers, Yard or other service designated by the Company.

NOTE: (The term "outside Hostlers" applies to hostlers handling engines between passenger stations and roundhouses or yards or on main tracks).

ENTRANCE TO SERVICE

Same standard as for Class A.

PROMOTION

Same standard as for Class A.

RE-EXAMINATION

20-30 in one eye, regardless of vision in the other, with or without glasses.

Class C

Brakemen in passenger, freight, or yard service, Yard Helpers, Switch Tenders.

ENTRANCE TO SERVICE

Not less than 20-20 in each eye tested separately without glasses. Must not accept a plus 2D lens, nor use glasses for near vision.

PROMOTION

20-30 combined, with or without glasses, provided there is 20-30 in one eye and not less than 20-40 in the other, with or without glasses. (From Class C to Class D).

RE-EXAMINATION

20-30 combined, with or without glasses, provided there is 20-30 in one eye and not less than 20-50 in the other, with or without glasses; or 20-20 in one eye, regardless of vision in the other, with or without glasses.

Class D

Conductors in passenger, freight or yard service, Yardmasters, Yard Foremen, Train Baggage-men.

ENTRANCE TO SERVICE

Not less than 20-30 in each eye without glasses.

RE-EXAMINATION

Not less than 20-40 in one eye and not less than 20-50 in the other eye, with or without glasses; or 20-30 in one eye and not less than 20-70 in the other eye, with or without glasses, or 20-20 in one eye, regardless of vision in the other, with or without glasses.

Class E

Train Despatchers whose duties require the necessary standard of Visual Acuity and Color Perception, Station Agents and Telegraph and Telephone Operators concerned with the movement of trains, Signal Foremen and Maintainers, Signalmen, Bridge and Track Foremen, Drawbridge Tenders, Car Inspectors.

ENTRANCE TO SERVICE

Not less than 20-30 in one eye and not less than 20-40 in the other eye, with or without glasses.

RE-EXAMINATION

Not less than 20-40 in one eye and not less than 20-70 in the other eye, with or without glasses; or 20-30 in one eye, regardless of vision in the other eye, with or without glasses.

Class F

Crossing Flagmen, Watchmen, Gatemen.

ENTRANCE TO SERVICE

Not less than 20-40 in each eye with or without glasses.

RE-EXAMINATION

Not less than 20-50 in one eye and not less than 20-70 in the other with or without glasses; or 20-30 in one eye regardless of vision in the other with or without glasses.

Class G

Employees operating snow plow, spreader, or other railway maintenance equipment moving on track, coupled ahead of locomotive, shall be examined under rules and standard specified for re-examination Class A.

27. The provisions of this Order shall apply to all American railways operating in Canada in so far as movements lying wholly within the jurisdiction of the Board are concerned. In the case of international movements the company may use standards which are higher and which are in use on American railways.

It is further ordered that the following General Orders be, and they are hereby, rescinded: No. 743, dated March 1, 1950, and No. 744, dated June 16, 1950.

HUGH WARDROPE,

Assistant Chief Commissioner,

The Board of Transport Commissioners for Canada.

GENERAL ORDER No. 799

In the matter of the revision of the regulations respecting the equipment of engines with headlights:

File No. 6511·5

MONDAY, the 21st day of June, A.D. 1954.

HUGH WARDROPE, *Asst. Chief Commissioner.*
F. M. MACPHERSON, *Commissioner.*
H. B. CHASE, C.B.E., *Commissioner,*

Upon reading the submissions filed—

It is ordered that the following regulations be, and they are hereby, approved:

Road Engines

1. Every railway company, subject to the jurisdiction of the Board is, required to equip each engine used in road service with headlights, having sufficient illuminating capacity to enable a person in the cab of each engine, who possesses the approved visual acuity of enginemen, to see in a clear atmosphere a dark object the size of a man standing erect at a distance of 800 feet or more ahead and in front of the engine. (See Note I).

2. Each engine used in road service which is regularly required to run backwards for any portion of its trip, except to pick up a detached portion of its train or in making a terminal movement, shall be equipped with a headlight at the rear which will meet the requirements set forth in paragraph 1.

Engines in Yard Service

3. Each engine used in yard service shall be equipped with two headlights, one located at the front and one located at the rear of the engine. Each headlight shall have sufficient illuminating capacity to enable a person in the cab of such engine who possesses the approved visual acuity of enginemen, to see a dark object the size of a man standing erect at a distance of 300 feet ahead and in front of the headlight.

Spare Parts

4. Each engine shall (except those equipped with twin sealed beam headlights), be provided with a proper stowage containing a supply of lamps and other necessary spare parts. This equipment should be checked frequently and replenished, when necessary.

Dimming Equipment

5. The headlights of engines used in road service shall be provided with a device whereby the light can be diminished when required. Dimming devices shall be located and installed having regard to the safety and convenience of enginemen.

. Maintenance

6. All headlights, their associated equipment and electrical circuits shall be maintained in good condition for service.

NOTE I: In consideration of the practical limits of present day headlight equipment, a beam range of 800 feet represents the minimum acceptable to the Board. However, increased range is desirable and railway companies are expected to adopt headlights of greater range as they become available.

And it is further ordered that General Order No. 522, dated November 9, 1933, be, and it is hereby, rescinded.

HUGH WARDROPE,
*Assistant Chief Commissioner,
The Board of Transport Commissioners for Canada.*

GENERAL ORDER No. 800

*In the matter of the application of the Executive Council of the Province of Alberta
for an Order amending Appendix "C" of General Order No. 581:*

File No. 40994

THURSDAY, the 8th day of July, A.D. 1954.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Upon reading the submissions filed—

It is ordered that the said Appendix "C" of General Order No. 581 be, and it is hereby, amended by adding to the list, to whom a copy of any application to the Board for approval of an Agreed Charge be sent, the "Alberta Freight Bureau, Edmonton, Alberta".

HUGH WARDROPE,

Assistant Chief Commissioner,

The Board of Transport Commissioners for Canada

GENERAL ORDER No. 801

In the matter of the application of the Executive Council of the Province of Alberta for an Order amending General Order No. 695:

File No. 25639

THURSDAY, the 8th day of July, A.D. 1954.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Upon reading the submissions filed—

It is ordered that the said General Order No. 695 be, and it is hereby, amended by adding to the list of those to whom notices of changes in the Canadian Freight Classification be sent, the "Alberta Freight Bureau, Edmonton, Alberta".

HUGH WARDROPE,
*Assistant Chief Commissioner,
The Board of Transport Commissioners for Canada.*

GENERAL ORDER No. 802

*In the matter of the application of the Executive Council of the Province of Alberta
for an Order amending Appendix "C" of General Order No. 581:*

File No. 40994

WEDNESDAY, the 25th day of August, A.D. 1954

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*
F. M. MACPHERSON, *Commissioner.*

Upon reading the submissions filed—

It is ordered

1. That Appendix "C" of General Order No. 581 be, and it is hereby amended by adding immediately after number 18 on the list therein the following:

"18A. Alberta Freight Bureau, 203 Alberta Jasper Building, Edmonton Alberta."

2. That General Order No. 800, dated July 8, 1954, be, and it is hereby rescinded.

A. SYLVESTRE,
Deputy Chief Commissioner.
The Board of Transport Commissioners for Canada

GENERAL ORDER No. 803

In the matter of General Order No. 3, dated July 3, 1907, as amended by General Orders Nos. 10, 417 and 446, dated respectively, May 5, 1908, May 18, 1925 and July 21, 1927, requiring Railway Companies subject to the jurisdiction of the Board to equip passenger coaches with fire extinguishers:

Case No. 1858

WEDNESDAY, the 10th day of November, A.D. 1954.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Upon reading the submissions filed—

It is ordered that every Railway Company subject to the jurisdiction of the Board shall equip each passenger train car built new or rebuilt subsequent to the effective date of this Order, excluding cars not normally occupied by passengers, railway or other personnel, with at least one unit of first-aid fire-fighting appliance as defined for quantity but not type by the National Fire Protection Association in Pamphlet No. 10 of May, 1953, "First Aid Fire Appliances".

Extinguishers must be of a type approved and bearing label of the Underwriters' Laboratories.

Extinguishers shall be maintained in good operating condition in accordance with the requirements of National Fire Protection Association Pamphlet No. 10, "First Aid Fire Appliances".

Extinguishers shall be placed in convenient and accessible locations where they are readily available. Instructions as to the operation of fire extinguishers must be displayed and train service personnel given practical instruction in the use of this equipment.

That General Orders Nos. 3, 10, 417 and 446 dated, respectively July 3, 1907, May 5, 1908, May 18, 1925 and July 21, 1927, be, and they are hereby, rescinded.

HUGH WARDROPE,
*Assistant Chief Commissioner,
The Board of Transport Commissioners for Canada.*

GENERAL ORDER No. 804

In the matter of cleaning of stations and disinfecting of passenger cars:

File No. 1708-3

WEDNESDAY, the 8th day of December, A.D. 1954.

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

It is ordered that every railway company subject to the jurisdiction of the Board be, and it is hereby directed and required:

(1) To maintain all its passenger stations, waiting rooms, toilet and lavatory facilities, clean and well ventilated; to keep said facilities in a sanitary condition.

(2) To maintain all its passenger carrying cars, when in service, including the toilet and lavatory facilities, smoking and other compartments of such cars, in a clean and sanitary condition, properly ventilated, heated and lighted.

(3) To adopt a By-law (if no such By-law has already been adopted), under section 293 of the Railway Act, prohibiting spitting in passenger stations, waiting rooms, toilet and lavatory facilities, or other premises of the company and in or upon the platforms of cars in which passengers may travel, except in receptacles suitable for the purpose, and to provide a penalty for breach thereof; and to post up and maintain in a conspicuous place in its passenger stations and in such places in the cars in which passengers may travel, where deemed necessary, a notice of such By-law and the penalty for breach thereof; such notices in the Province of Quebec to be printed in French and English.

(4) To provide and maintain cuspidors and ash receptacles in such places in its passenger stations and passenger cars, where deemed necessary by the responsible railway officers; and to have such cuspidors emptied and washed clean whenever necessary, but at least once in every forty-eight hours.

(5) To take all necessary precautions to see that cases of known contagious diseases are reported immediately to the responsible railway officials, and to clean thoroughly and disinfect all cars known or suspected to have carried any passenger suffering from contagious disease.

(6) (a) To transport known tuberculosis patients in room accommodation of railway cars where such cars are regularly operated and when such space is available:

Where railway cars with room accommodation are not operated or when such space is not available, to accommodate such patients in baggage car when possible, in which event such patients must be accompanied by an attendant and standard form of release executed on behalf of such patients and attendants

To refuse to transport in open space of passenger carrying equipment a patient known to be suffering from tuberculosis.

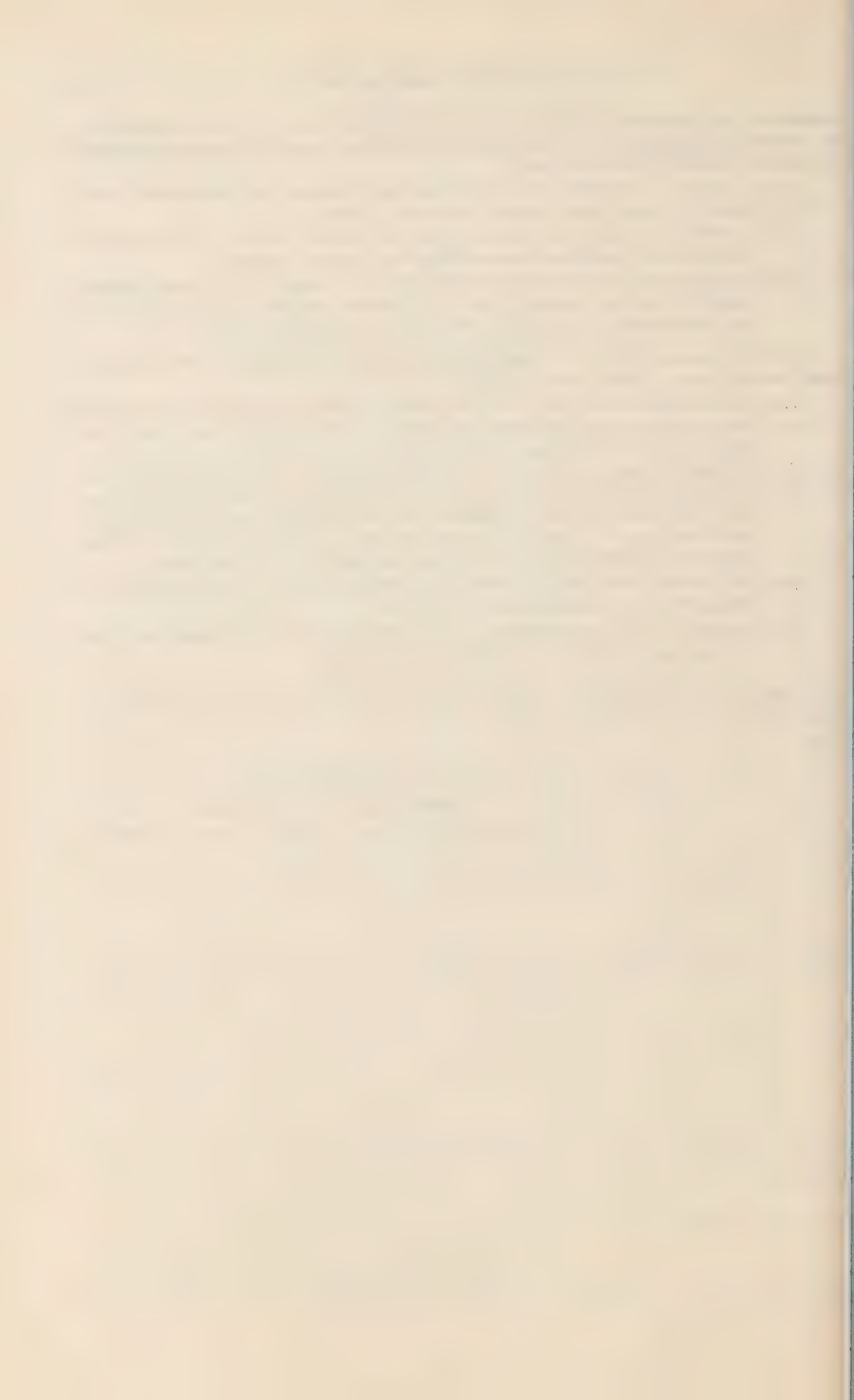
(6) (b) To refuse to transport a patient known to be suffering from tuberculosis unless such patient shows satisfactory evidence that he has been duly

instructed by appropriate medical authorities regarding the usual precautions to prevent dissemination of the disease, including the collection and disposal of sputum, and is in possession of:

- (1) a sputum cup made of impervious material and so constructed as to admit of being tightly closed when not in use;
 - (2) a sufficient supply of gauze, paper or similar articles of proper size to cover the mouth and nose while coughing or sneezing;
 - (3) a heavy bag or other type of container for receiving the soiled gauze, paper or similar articles; and the patient undertakes to arrange for the destruction of the above articles by burning or disinfection.
- (7) To ensure, where a tuberculosis patient is transported and requires meal service from railway sources, that:
- (a) all meals are supplied in such patients' accommodation, and that all dishes, cutlery, etc., so used, are kept in that accommodation until the completion of the meal;
 - (b) all such dishes, cutlery, etc., are collected by a railway attendant at the completion of the meal, and are kept segregated from other dishes, until they are properly sterilized by subjecting them to live steam sterilization, or, if steam is not available, by immersion in boiling water for at least three minutes, before being put into use again;
 - (c) all railway bedclothing, including blankets and linen, are removed and laundered before again being used;
 - (d) accommodation quarters are damp cleaned with a detergent solution containing a disinfectant before re-occupancy.

And it is further ordered that General Order No. 778, dated January 5, 1953, be, and it is hereby, rescinded.

A. SYLVESTRE,
*Deputy Chief Commissioner,
The Board of Transport Commissioners for Canada,*



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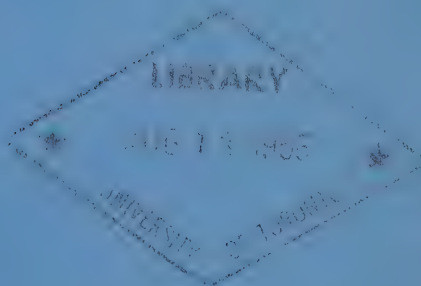
FIFTY-FIRST REPORT

of

**THE BOARD OF TRANSPORT
COMMISSIONERS FOR CANADA**

FOR THE YEAR ENDED
DECEMBER 31

1955



EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1956



CANADA

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THE BOARD OF TRANSPORT COMMISSIONERS
FOR CANADA

Hon. Justice JOHN D. KEARNEY, *Chief Commissioner.*

W. H. M. WARDROPE, *Assistant Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

L. J. KNOWLES, *Commissioner.*

C. W. RUMP,
Secretary

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APPLICATIONS SUBMITTED TO THE BOARD

During the year ended December 31, 1955, 2204 applications were submitted to the Board.

TECHNICAL SERVICES

Besides its Administrative and Legal Branches, the Board is composed of five main technical departments, namely:—the Traffic, the Engineering, the Operating, Transportation Economics and the Accounts and Cost Finding Branch. Summaries of the activities of these departments, during the year 1955, are contained in the Appendices to this report.

CHANGES IN PERSONNEL OF THE BOARD

Mr. L. J. Knowles was appointed a member of the Board by Order in Council P.C. 1955-1227, dated August 16, 1955, effective September 1, 1955, following the resignation of Mr. O. A. Matthews, as Commissioner, effective that date.

By Order in Council P.C. 1955-1228, dated August 16, 1955, subsequently amended by P.C. 1955-1412 of September 16, 1955, Mr. Overton A. Matthews was appointed as part-time Financial and Economics Consultant to the Board, effective September 2nd, 1955.

In November 1955, Mr. E. R. Hopkins, Secretary of the Board, was appointed to The Senate as Acting Law Clerk and Parliamentary Counsel, and his appointment to that position was confirmed by a resolution of The Senate, effective January 10th, 1956. During his absence, Mr. C. W. Rump, the Board's Assistant Secretary, acted as Secretary, and his appointment to that position was made effective January 1, 1956 by Order in Council P.C. 1956-152, dated January 25, 1956.

PUBLIC SITTINGS OF THE BOARD

During the year covered by the period from January 1, 1955, to December 31, 1955, the Board held 37 public sittings at which 43 cases were heard. The number of public sittings held in the various provinces was as follows:

Province	Number
Ontario.....	16
Quebec.....	9
Manitoba.....	1
Saskatchewan.....	0
Alberta.....	0
British Columbia.....	3
Nova Scotia.....	3
New Brunswick.....	4
Prince Edward Island.....	1
Newfoundland.....	0
Total.....	37

LIST OF APPLICATIONS HEARD AT PUBLIC HEARINGS OF THE BOARD FOR THE YEAR ENDED DECEMBER 31, 1955

1. Application of the Industrial Traffic Bureau Limited on behalf of The Interior Lumber Manufacturers' Association, The Northern Interior Lumbermen's Association and The Saskatchewan Federated Co-operatives Limited, in the matter of rates on lumber and related articles in tariffs filed with the Board to become effective January 1, 1955.

File No. 26901·62·7

2. In the matter of the application of Irish Shipping Limited under section 33 and all other relevant sections of the Railway Act:

(a) for an order declaring that the Canadian Pacific Railway Company, the Canadian National Railways and other members of the Railway Association of Canada have failed to do what they were required to do by Order No. 84457, dated August 31, 1954; and

(b) for such further or other relief as to the Board may seem just and proper.

File No. 3678·34·1

3. In the matter of the application of the Fresh Fruit and Vegetable Association of Montreal, under section 52 and all other relevant sections of the Railway Act, requesting the Board:

(a) to review the Judgment herein, dated July 9, 1954, and Order No. 84121, dated July 14, 1954, issued in pursuance thereof;

(b) to vary and change the said Judgment by deciding that the \$11.00 charge referred to therein is a charge which is in part in respect of the perishable team tracks and the traffic thereon, and that the Board has jurisdiction to determine whether the said charge is illegal and whether it is unreasonable;

(c) to vary the said Order accordingly, and

(d) to grant such further and other relief as to the Board may seem just and proper.

File No. 26792·17·4

4. In the matter of the application of the Canadian National Railways for an Order granting it leave to abandon the operation of its Scotia Subdivision in Pictou County, Nova Scotia, between Mile 3·00 and Mile 8·24.

File No. 39310·61

5. In the matter of the application of the Canadian National Railways under sections 33, 34, 315 and all other relevant sections of the Railway Act for an Order authorizing them to discontinue certain passenger train services on their lines in the County of Pictou, Province of Nova Scotia, and to substitute therefor suitable and adequate service in the area by highway.

File No. 27563·458

6. In the matter of the proposal of the Canadian National Railways to cancel mixed trains 283 and 284 between Halifax and Liverpool, N.S.; to convert present passenger trains 87 and 88 to mixed operation to handle the through carload traffic of mixed trains 283 and 284; and to handle the express, mail and passenger traffic of trains 283 and 284 on the proposed mixed trains and trains 285 and 286.

File No. 27563·26·1

7. In the matter of the application of the Canadian National Railways under section 168 of the Railway Act and section 2 (3) of the Canadian National-Canadian Pacific Act and all other relevant statutory provisions for an Order granting them leave to abandon the operation of the following line of railway, namely: a portion of the Albert Subdivision in the Province of New Brunswick, between Hillsboro, mileage 24·4, and Albert, mileage 44·8, a total distance of 20·4 miles.
File No. 39310·64
8. In the matter of the application of the Canadian National Railways under section 168 of the Railway Act and section 2 (3) of the Canadian National-Canadian Pacific Act and all other relevant statutory provisions for an Order granting them leave to abandon the operation of the following line of railway namely: the Elgin Subdivision in the Province of New Brunswick between Petitcodiac (mileage 0·0) and Elgin (mileage 13·5), a total distance of 13·5 miles.
File No. 39310·2
9. In the matter of the application of the Canadian National Railways under sections 33, 34, 315 and all other relevant sections of the Railway Act for an Order authorizing the discontinuance of the present railway passenger service between Campbellton and Dalhousie, N.B., and the substitution therefor of passenger service by means of buses on the highways serving both Campbellton, Dalhousie and intermediate points.
File No. 27563·266
10. In the matter of the apportionment of the cost of raising the power line ordered to be raised by Order of the Board No. 82877, dated January 11th, 1954, in connection with the installation of signal protection at the crossing of the Canadian National Railways and the Canadian Pacific Railway's tracks and Morris Street, in the Town of Gladstone, Manitoba.
File No. 9437·732
11. In the matter of the application of Trans-Canada Pipe Lines Limited hereinafter called the "Applicant", under section 20 and other relevant sections of the Pipe Lines Act, for an Order granting leave to the Applicant to deviate or change the general location of its proposed pipe line, described in Order No. 84220, dated July 24, 1954, between Nipigon and North Bay as follows:
generally following the C.N.R. railway north from Nipigon past Cameron Falls, Orient Bay, Beardmore, Jellicoe and Hearst and thence following generally the railway and the highway past Kapuskasing, Smooth Rock Falls, Cochrane, Matheson Station, Englehart, New Liskeard, Colbalt, Latchford and Timagami to intersect the original route at North Bay; and to make certain minor changes in the route and size of the pipe line; all as more particularly set forth in the application.
File No. 45371·20·2
12. In the matter of the application of the Lake Erie & Northern Railway Company and the Grand River Railway Company pursuant to section 33 and any and all other relevant sections of the Railway Act for an Order approving the discontinuance of passenger train service, effective April 24, 1955, upon and over the Lake Erie and Northern Railway

line from Galt to Port Dover, Ontario, and the Grand River Railway line from Galt to Waterloo, Ontario, and a branch line from Preston to Hespeler, Ontario.

File No. 27563·426

13. In the matter of the application of the Canadian National Railway Company, under section 168 of the Railway Act and section 2, subsection 3 of the Canadian National-Canadian Pacific Act and all other relevant statutory provisions, for an Order granting it leave to abandon the operation of the following line of railway, namely:

A portion of the Alliston Subdivision, Ontario, between Alliston (mileage 5·1) and Creemore (mileage 23·6), a total distance of 18·5 miles.

File No. 39310·63

14. In the matter of the application of the Bell Telephone Company of Canada under the provisions of its Special Act 11-12 George VI (1948) c. 81 (Can.) for an Order approving of an issue, sale or other disposition of shares of its capital stock.

File No. 36730·2

15. In the matter of the application of the British Columbia Telephone Company under the provisions of chapter 66 of the Statutes of Canada 6-7 Geo. V., as amended by chapter 36 of 4-5 Geo. VI, chapter 86 of 11 Geo. VI and chapter 85 of 15 Geo. VI for an Order approving of the amount, terms and conditions of the issue and sale or other disposition of a total number of preferred shares of its capital stock not to exceed 60,000 shares of a par value of \$100.00 each.

File No. 29885·13

16. In the matter of the application of Northland Navigation Company Limited for an Order, under sections 33, 317, 319 (3), 320, 324 and 328 of the Railway Act, directing the British Yukon Railway Company and the British Columbia Yukon Railway Company to grant to the applicant the same privileges, joint rates and rights of participation therein as is presently granted to another Canadian Steamship carrier on the route from Vancouver, British Columbia, to Skagway, Alaska and points beyond Skagway to Whitehorse, Yukon Territory.

File No. 2030·9

17. In the matter of the application of The Vancouver Merchant's Exchange Limited, Vancouver, B.C., for an Order under section 328 of the Railway Act for the establishment by the Canadian National Railways and the Canadian Pacific Railway Company of export rates on flaxseed from Prairie points to various Pacific Coast ports on the basis to rates that apply on the same commodity when shipped from Prairie points to the Head of the Lakes.

File No. 30637·1

18. In the matter of the application of Swift Canadian Company Limited for a ruling as to the proper classification rating applicable in Canada on canned dog feed which is manufactured under the trade name "Pard".

File No. 33365·162

19. In the matter of the application of the Canadian National Railways, under section 259 and all other relevant sections of the Railway Act, for an Order authorizing them to cross McCowan Road with three tracks; Brimley Road with three tracks and the unopened road allowance with one track, all located in their Scarborough Yard, at Scarborough, Ontario, and shown on Plan C-15993, revised to September 10, 1954.

File No. 22773·7

20. In the matter of the application of the Montreal and Southern Counties Railway Company, under sections 33, 34, 168 and all other relevant sections of the Railway Act, and such other statutory provisions as may be applicable, for an Order authorizing it to abandon the operation of its line of railway between Montreal and Montreal South; between St. Lambert and Montreal and Southern Counties Junction at Mackayville; and between Marieville and Ste. Angele de Monnoir, P.Q., a distance of 12·4 miles, including the operation of the trains it operates on lines of the Canadian National Railways, as shown on the map attached to the application.

File No. 39310·65

21. In the matter of the application of the Corporation of the Village of Senneterre requesting the construction of a viaduct over the tracks of the Canadian National Railways on Third Avenue West, Senneterre, P.Q.

File No. 42114

22. In the matter of the complaint of the Jeune Commerce Inc., of Nicolet, P.Q., with respect to the proposed discontinuance of service of C.N.R. trains Nos. 645 and 646 between Montreal and Nicolet, in the Province of Quebec.

File No. 27563·181

23. In the matter of the application of Westcoast Transmission Company Limited, dated April 28, 1955, for an Order extending until October 31, 1957, the time for construction and completion of its proposed company pipe line for which leave to construct was granted by Order No. 79957, dated October 11, 1952, and granting leave to increase the diameter of the line to 30 inches and to make certain changes in the general location of the said line, including the elimination of the laterals to Kamloops and Vancouver, and the elimination of the pipe line from Brookmere to Osoyoos for which leave to construct was granted by Order No. 81825, dated May 2, 1953; the revised general location being shown on the map attached to the said application.

File No. 45371·3·5

24. In the matter of the application of the Canadian National Railways under sections 33, 34, 315 and all other relevant sections of the Railway Act for an Order authorizing the discontinuance of the present local railway passenger service on their Island Division, in Prince Edward Island, during eight months in each year, from approximately mid-April to mid-December.

File No. 27563·461

25. In the matter of the application of the Canadian Freight Association under the provisions, of the Transport Act for approval of proposed Supplement No. 1 to Agreed Charge C.T.C. (AC) No. 75 applicable on potatoes from Prince Edward Island points.

AND

In the matter of the application of H. B. Willis, Inc., and Simmons & MacFarlane Limited for a fixed charge the same as set forth in the the said Supplement No. 1.

File No. 40994·54

26. In the matter of the application of the Canadian National Railways, under sections 33, 34, 315 and all other relevant sections of the Railway Act, for an Order authorizing immediate discontinuance of the operation of their passenger trains No. 397 and No. 398 between Bathurst and Tracadie, in the Province of New Brunswick.

File No. 33969

27. Application of the Central Vermont Railway Company a subsidiary of the Canadian National Railway Company, under section 168 of the Railway Act and Section 2, Subsection 3 of the Canadian National—Canadian Pacific Act and all other relevant statutory provisions for an Order granting it leave to abandon the operation of the following line of railway, namely:—

That portion of the St. Armand Subdivision in Canada between Iberville, P.Q. (Junction with the Le Moyne Subdivision) and the international boundary near St. Armand, P.Q., a total of 24·73 miles.

File No. 39310·56

28. In the matter of the application of Westspur Pipe Line Company for an Order granting leave to it to construct a pipe line for the transportation of crude oil and other liquid and gaseous hydrocarbons, from a point in the vicinity of Midale, in the Province of Saskatchewan, to a point in the vicinity of Cromer, in the Province of Manitoba, together with such pipe lines and other facilities as may be required for the purpose of gathering crude oil and other liquid and gaseous hydrocarbons along and in the vicinity of the pipe line route.

File No. 45371·27

29. In the matter of the application of S. & M. Pipeline Limited for an Order granting leave to it to construct a pipe line for the transportation of crude oil from the vicinity of Midale in the Province of Saskatchewan by way of Frobisher, also in the Province of Saskatchewan to Cromer in the Province of Manitoba, the said line being approximately 98·5 miles in length, together with such pipeline and other facilities as may be required for the purpose of gathering crude oil along and in the vicinity of the pipe line route.

File No. 45371·26

30. In the matter of the application of Trans-Prairie Pipelines of Canada, Limited, for an Order granting leave to it to construct a pipe line for the transportation of crude oil and other liquid and gaseous hydrocarbons from a point in the vicinity of Midale in the Province of Saskatchewan by way of Frobisher in the Province of Saskatchewan, to Cromer in the Province of Manitoba, together with such pipe lines and

other facilities as may be required for the purpose of gathering crude oil and other liquid and gaseous hydrocarbons along and in the vicinity of the pipe line route.

File No. 45371-28

31. In the matter of the application of Trans-Canada Pipe Lines Limited, for an Order granting leave to it to build between September 30, 1955, and December 31st, 1956, a natural gas pipe line from Sheridan, Ontario, to a point near Ste. Anne de Bellevue, Quebec, including a branch line from the Town of Morrisburg to the City of Ottawa, Ontario, and the City of Hull, Quebec, being a portion of a total pipe line from Alberta to Montreal as authorized by Order No. 84220, dated July 24, 1954.

File No. 45371-20-2

32. In the matter of the application of the City of Saulte Ste Marie for an Order of the Board authorizing the construction of a subway under the tracks of The Algoma Central and Hudson Bay Railway Company on Wellington Street in the said City at mileage 2-1 Soo Subdivision, and directing the apportionment of the cost thereof.

File No. 17990-14

33. In the matter of the application of the Town of LaTuque, P.Q., for an Order of the Board authorizing the construction of an overhead bridge over the tracks of the Canadian National Railways at St. Michel Street, LaTuque, P.Q., and directing the apportionment of the cost of the said construction.

File No. 31085

34. In the matter of the application of the Canadian Freight Association for approval of an Agreed Charge between British Columbia Electric Railway Company Limited, Canadian National Railways, Canadian Pacific Railway Company, Ontario Northland Railway, Vancouver and Lulu Island Railway Company (Canadian Pacific Railway Company, Lessee) and Canada Wire & Cable Co., Limited, Donald Ropes & Wire Cloth Limited, the B. Greening Wire Co., Limited on wire rope and wire strand from Hamilton, Smiths Falls and Toronto to Vancouver.

AND

In the matter of the application of The Steel Company of Canada, Limited for a fixed charge for the transport of its wire rope and wire strand from Montreal to Vancouver by the said railway companies.

File No. 40994-87

35. In the matter of the application of The Railway Association of Canada on behalf of its member companies for an Order authorizing the publication of a scale of local mileage rates and rates related thereto on grain and grain products within Western Canada as set out in Appendix "B" attached to the application.

File No. 46921 Part "2"

36. In the matter of the General Freight Rates Investigation directed by Order in Council P.C. 1487, dated April 7, 1948, (Equalization Case)

Part 2—Commodity Mileage Scales—Grain and Grain Products (Scale No. 7), and the approximate increase of 10% proposed in the Board's Judgment dated August 31, 1955.

File No. 47828·3

37. In the matter of the complaints of the City of Vancouver and the Corporation of the District of Surrey, Cloverdale, B.C., respecting the rates on Grain and Grain Products from the Prairie Provinces to British Columbia for domestic consumption, versus the rates east-bound to Port Arthur and Fort William, Ont.

File No. 24271·9

38. In the matter of the equalization of the following Commodity Mileage Rates

Scale No. 1—Brick, building; Tile, hollow building.

“ 2—Clay, common; Stone, field; Cinders, coal.

“ 4—Cordwood for fuel purposes.

“ 5—Edgings and Slabs for fuel purposes.

“ 8—Gravel, Building Sand and Crushed Stone.

“ 17—Scrap Iron and Steel.

File No. 47828

39. In the matter of the apportionment of the costs of the works of protection carried out at the crossing of the Canadian National Railways and Fifth Avenue, in the Town of Ville St-Pierre, at the crossing of the canal bank spur of the Canadian National Railways and Fifth Avenue in the Town of Ville St-Pierre, at the crossing of the railway of the Canadian Pacific Railway Company and Dollard Avenue in the Town of Ville LaSalle in pursuance of the provisions of Order of the Board No. 80562, dated January 7th, 1953, and of the cost of construction by the Department of Roads of the Province of Quebec of an overpass of the eastward lane, of Highway No. 2 across Fifth Avenue authorized by the same Order.

File No. 14813

27156·277

40. In the matter of the application of the Municipality of the Township of Granby, P.Q., for an Order directing the Canadian National Railways to rebuild and widen to twenty feet the bridge over the railway tracks on Canaan Road in the said Township, mileage 16·96 Granby Sub-division.

File No. 44372

41. In the matter of the application of the Municipality of the Township of Magog, P.Q., for an Order directing the reconstruction of the overhead bridge over the tracks of the Canadian Pacific Railway Company Austin Road, about one and one-half miles from Magog, P.Q., at mileage 89·6 Sherbrooke Subdivision.

File No. 47526

42. In the matter of the application of Wilcan Shipping Corporation Limited for a license under the Transport Act to transport by water motor vehicles, automobiles and trucks between Windsor and Fort William, Ontario.

File No. 42076·53

43. In the matter of the application of the Town of Victoriaville for an Order of the Board authorizing the construction of a viaduct between Gamache and Carignan Boulevards with a view to eliminating the Octave Street level crossing, and apportioning the cost of the said construction after a grant is made from the Railway Grade Crossing Fund.

File No. 32362

APPEALS FROM JUDGMENTS OF THE BOARD

During the year 1955 an appeal was taken to the Governor in Council from the Board's Order dated July 7, 1955, which authorized Canadian National Railways to construct trackage across certain highways in Scarborough. The appeal was pending at the end of the year.

The Governor in Council dismissed an appeal by the Oakville Commuters Association from the Board's Order dated August 4, 1954, which dismissed the Association's complaint of unjust discrimination by Canadian National Railways.

An application by Swift Canadian Company Limited for leave to appeal to the Supreme Court of Canada from the Board's judgment of June 10, 1955, in respect of canned dog food was refused by the Chief Justice. 72 C.R.T.C. 279.

AMENDMENTS TO THE RAILWAY ACT AND TRANSPORT ACT.

The Railway Act was amended in 1955 by chapter 41 of that year, which implemented certain recommendations made by the Board in its Report on the Railway—Highway Crossing Problem dated May 10, 1954. The principal changes were an increase in the amount of the annual appropriation to the Railway Grade Crossing Fund, to \$5,000,000 from \$1,000,000; increases in the maximum contributions that may be made by the Board towards protection ordered in respect of crossings at rail level, the former 40% contribution being increased to 60% with a maximum of \$300,000 instead of \$150,000; and authority was given to make grants towards the cost of reconstruction and improvement of inadequate grade separations up to 30% of the cost of the work ordered with a maximum of \$150,000.

The Transport Act was amended in 1955 by chapter 59 of that year to implement the Report of the Royal Commission on Agreed Charges. The amendments give greater freedom to carriers to make agreed charges and provide that agreed charges shall take effect twenty days after the day the agreement was filed with the Board, the Board's approval of the agreed charge being no longer required. There are other provisions for the fixing of a charge by the Board on complaint of a shipper and for investigation of agreed charges and complaints when referred to the Board by the Governor in Council or Minister of Transport.

DECISIONS OF THE BOARD

The Board's Judgments, Orders, Regulations and Rulings are published fortnightly by the Queen's Printer. The 1955 proceedings are reported in volumes 44 and 45 J. O. R. & R. The judgments are also reported in Canadian Railway and Transport Cases.

Notes on some of the judgments given in 1955 appear below:

Application of Christmas Coal Company requesting the Board to assess damages or fix compensation, 45 J.O.R. & R. 25; 72 C.R.T.C. 192. The appli-

cant had been tenant of land owned by The T.H. & B. Railway Company under a year-to-year lease terminable upon 60 days' notice. The City of Hamilton obtained an order of the Board for construction of a subway and the railway company terminated the lease, in accordance with its terms, at the request of the City, a portion of the leased lands being required for the construction of the subway. The applicant's claim was not for the value of the leasehold estate, which was properly determined, but for the value of the possibility or probability that the lease would not be determined. Held, that following the reasoning adopted by the Courts the Board would not accept probability of renewal of the lease as a basis for compensation and that, the lease having been legally terminated, the applicant cannot be considered as the party interested or affected by the Board's order.

Application of Canadian Passenger Association for rescission of Board's order No. 75234, dated September 21, 1950, which prescribed commutation fares. 45 J.O.R. & R., 57; 72 C.R.T.C. 72.

The commutation rates in effect when the application was made in May, 1954, were prescribed by the Board in 1950 by Order No. 75234. The railways in this application sought rescission of that order concurrent freedom to increase commutation rates approximately 100 per cent, half of the proposed increase to be effective immediately followed six months later by the full increase. The application affected a number of areas including the Toronto and Montreal areas and the first hearing was held at Toronto and related to commutation services and fares in that area. Following that hearing the Board held in a judgment dated August 4, 1954, that in dealing with commutation services the time had arrived to apply a general rule that a railway is entitled to charge commutation rates at a level that will return at least the railway's reasonable and actual out-of-pocket cost of furnishing the service concerned and that the railway should not be required by the Board to provide or continue to provide commutation services which will not meet that cost. The Board thereupon authorized adjustment of commutation rates in the Toronto area as applied for but subject to the condition that the increases be made effective in three stages, namely, approximately 50 per cent of the increase not earlier than September 30, 1954, another 25 per cent not earlier than six months from the date of the first increase and the final portion not earlier than another six months thereafter. Subsequent to that judgment hearings were held in Montreal. The railways submitted that the application if granted would do nothing more than give the railways a fighting chance to recover mere out-of-pocket costs; also that when rates are shown to be below the compensatory level the Board has an obligation to see that they do not remain below that level but that the railway may, in their sole discretion, fix commutation rates at any higher level they wish if such rates are less than the coach class passenger rates and if there is no unjust discrimination. Opposing municipalities did not object to rescission of the 1950 order but maintained that the proposed increase of 100 per cent was excessive and that all the railways need is an increase of 35 per cent.

The Board held that when the railways on their own initiative and for many years have caused commuter rates to be established in given areas and sought to have them increased the Board can quite legally and properly consider with respect to both commuters and the railways the reasonableness of the proposed increased fares and the manner in which they are to be applied; and that, on the facts before the Board in the present case, it has jurisdiction to prescribe the rates and to fix, determine and enforce just and reasonable commutation rates; that while further evidence and investigation are necessary before final judgment can be rendered, sufficient proof was made to justify the railways putting into force an increase of 50 per cent as it appeared that even if the commuters are given the benefit of every reasonable doubt the revenues with such rates in effect will not exceed the out-of-pocket costs properly chargeable

to commuter service. Order No. 75234 was rescinded and the applicant railways were authorized to adjust their commutation fares in accordance with the judgment in all areas other than the Toronto area, to which the Board's judgment and order of August 4, 1954, remained applicable. At the end of 1955 the Board was continuing its investigation upon the application.

Re Equalization of Freight Rates. 54 J.O.R. & R. 9; 72 C.R.T.C. 1.

In notes and reasons for judgment dated February 28, 1955, the Board gave detailed reasons in respect of its judgment and order dated March 1, 1954, which prescribed a uniform equalized class rate scale for application within Canada west of Maritime territory and between that area and the Maritimes to the extent of the changes made in the territory west of the Maritimes. These notes *inter alia* gave a short historical review of some of the events and conditions leading up to P.C. 1487 and the equalization provisions under section 336 of the Railway Act and also reviewed the freight classification, the scales submitted by Canadian National Railways, Canadian Pacific Railway Company and the Province of Alberta, the interim reduction of five per cent in western rates that the Board had directed and the authorized increase up to ten per cent in eastern rates, the interim uniform scale set forth in the Board's judgment of December 12, 1952, and objections made to the Board in respect of that scale. The Board made a modification in the taper of the scale proposed in the 1952 judgment and an upward revision of the scale and increased from 25 to 50 miles the size of the mileage groups beyond 1,500 miles. Groups A and B in eastern Canada were retained in a modified form. A reduction was made in rates for the water haul to and from Vancouver Island. The separate scale of rates for less than carload traffic up to 35 miles was eliminated and the Board rescinded that part of the 1952 judgment which prescribed differentials between the all-rail rates and the lake-rail, rail-lake-rail and all-water rates.

The Board pointed out that this evolution in Canadian freight rates must be tested in the light of experience, that we are entering an uncharted field in the equalization of rates on all normal class-rated traffic and while the Board has endeavoured to exercise due care to prescribe a scale that after extensive hearings had received relatively little criticism, the scale could hardly be expected to have no defects and consequently the Board will closely follow the results of the new rates.

Application of Irish Shipping Limited re issuance of through bills of lading by railway companies for export traffic. 45 J.O.R. & R. 199; 72 C.R.T.C. 243.

In a previous judgment the Board found that the railways' action in extending through bill of lading privileges to Conference lines while refusing to extend them to other lines willing and able to execute the same or similar arrangements with the railways, constituted undue prejudice and disadvantage to the lines which had been denied such privileges, and the Board ordered that the undue prejudice be removed. The railways thereupon proffered a new form of agreement containing a clause providing that each steamship company party thereto would agree to charge the current rates established by the other signing steamship companies. The complainants refused to sign the agreement and asked the Board to find that the railways had failed to remove the undue prejudice as ordered by the Board. The Board found that the substitution of the clause mentioned in place of the former Conference membership requirements did not meet the direction contained in its order and that the railways had not removed the undue prejudice.

Application of Trans-Canada Pipe Lines Limited for leave to construct Toronto-Montreal portion of its pipe line. 45 J.O.R. & R. 327; 73 C.R.T.C. 49.

This was an application for leave to construct a pipe line from near Toronto to Montreal, with a branch line to Ottawa, being a portion of the applicant's proposed pipe line from Alberta to points in Ontario and Quebec for which

authority to construct was given by the Board in July 1954. At a hearing representations were made on behalf of the Government of Canada that the Government is of the opinion that this portion is a necessary preliminary stage of construction to the completion of the whole pipe line and that leave to construct this portion should be authorized without awaiting proof as to the financial commitments for the entire line. Two banks were ready to advance the necessary monies for construction of this portion. The Board gave leave to construct as applied for an also extended until April 30, 1956, the period for the applicant to satisfy the Board that satisfactory arrangements have been completed for financing the construction of the entire line.

Application of Trans-Canada Pipe Lines Limited for leave to change the general location of its proposed pipe line in Northern Ontario. 45 J.O.R. & R. 377; 73 C.R.T.C. 52.

In its judgment dated July 24, 1954, the Board conditionally gave leave to the applicant to construct its proposed pipe line for natural gas from Alberta to points in Ontario and Quebec. At that time the company preferred a general route through Northern Ontario from the vicinity of Nipigon through or in the vicinity of Schreiber, Marathon, Hawk Junction, Chapleau, Sudbury to North Bay, and the Board gave leave to construct along that route but with liberty to the company to change to a northern route from Nipigon via Long Lac, Hearst and Kapuskasing to North Bay if the company became convinced that the northern route should be followed and provided that the cost of the deviation would not be greater than the cost of the southern route. The company carried out further surveys and concluded that the northern route, with a lateral to Sudbury, is preferable to the southern route and submitted evidence as to the cost of construction and maintenance of both routes and other relevant data which satisfied the Board that the application to change to the northern route should be granted. An order was issued accordingly, including leave to make other more minor changes in location and diameter of the line.

Application of Canadian National Railways for leave to abandon operation of part of its Algonquin subdivision between Falding and Scotia, Ontario. 44 J.O.R. & R. 391; 72 C.R.T.C. 129.

This was an application for leave to abandon operation of approximately 40 miles of the C.N.R.'s Algonquin subdivision. At a hearing evidence was given as to revenues and expenses of the line and alternative transportation services. The Board affirmed the principle which it applies in abandonment cases, namely, "The issue in each case where abandonment is sought resolves itself into a question of whether the loss and inconvenience to the public consequent upon the abandonment outweigh the burden that continued operation of the railway line involved would impose upon the railway company." The Board held that the burden of continued operation outweighs the detrimental results to the public, and granted the application.

Application of Canadian National Railways to discontinue local passenger services in Prince Edward Island. 45 J.O.R. & R. 269; 72 C.R.T.C. 305.

Canadian National Railways applied for an order authorizing the discontinuance of its local passenger service in Prince Edward Island from approximately mid-April to mid-December. This service is performed entirely by mixed trains. At a hearing in Charlottetown evidence was given in respect of all aspects of these services. The Board refused to authorize discontinuance of local passenger service on the railway's lines between Charlottetown, Summerside and Tignish, Summerside and Borden and Summerside and Emerald Junction but found that the railway is entitled to some relief and as it did not appear that the public would be seriously inconvenienced if the local passenger service were discontinued on the remainder of the lines in Prince Edward Island the Board

granted the application in respect of those remaining lines, subject to the condition that if for any reason the highways are impassable prior to mid-December or subsequent to May 1st in any year rail service will be provided until such time as the highways are open for heavy traffic. It was also understood that if, after a reasonable trial, the proposed alternative highway services are found to be unsatisfactory to the public the matter could be again referred to the Board.

Application of Bell Telephone Company of Canada for extended area service, Toronto. 45 J.O.R. & R. 1; 72 C.R.T.C. 112.

The company submitted for approval a plan of extended area service which it proposed to give in respect of telephone exchange service between the Toronto exchange and certain other exchanges in the suburban areas of Toronto. The essence of the plan which the Board had to consider was the tariff charges which would prevail if the plan were adopted. A great deal of publicity was given to the proposal and the Board concluded that the plan meets all reasonable demands made for additional service, that it meets with general approval of a substantial majority of the affected subscribers and the Board found no evidence of unreasonableness or unjust discrimination in the rates proposed to be charged. The reasonableness of applying the urban rates to the extended area had been previously approved and the Board affirmed that decision. The imposition of an additional charge to the basic Toronto exchange rates is justified by the increased expense and loss of toll revenue. The plan meets all the objects of those who have been seeking the additional facilities and creates comparable facilities amongst all exchanges in the area involved. The Board therefore approved the proposed plan in respect of the rates to be charged.

**Interim Report
to His Excellency the Governor General in Council
on the Equalization of Freight Rates**

OTTAWA, March 25, 1955

To His Excellency the Governor General in Council

MAY IT PLEASE YOUR EXCELLENCY:

I have the honour to hand you herewith an interim report of the Board of Transport Commissioners, pursuant to the Order in Council of April 7, 1948, P.C. 1487, and pursuant to the subsequent legislation enacted on the same subject matter of Equalization of Freight Rates, being Section 336 of the Railway Act, R.S. 1952, Chapter 234, a copy of each of which is hereto attached.

Your obedient servant,

JOHN D. KEARNEY
*Hon. Mr. Justice John D. Kearney,
Chief Commissioner.*

P.C. 1487

Certified to be a true copy of a Minute of a Meeting of the Committee of the Privy Council, approved by His Excellency the Governor General on the 7th April, 1948.

The Committee of the Privy Council have had before them Order No. 70425 of the Board of Transport Commissioners for Canada of March 30th, 1948, providing for certain increases in freight rates and charges by railway companies and express companies, as set out in detail in the said Order.

The Committee observe that no general investigation of freight rates has been made in Canada since that conducted in 1925 by the Board of Railway Commissioners for Canada under direction of Order in Council P.C. 886 of June 5th, 1925.

The Committee further observe that in the said Order in Council it was stated that "the policy of equalization of freight rates should be recognized to the fullest possible extent as being the only means of dealing equitably with all parts of Canada and as being the method best calculated to facilitate the interchange of commodities between the various portions of the Dominion as well as the encouragement of industry and agriculture and the development of export trade."

The Committee also observe that since decision was rendered upon the investigation referred to in the preceding paragraphs, namely by judgments of the said Board of September, 1927, many changes have taken place in the economy of Canada and it is therefore advisable that the Board of Transport Commissioners for Canada be directed to make a thorough investigation of the rates structure of railways and railway companies which are under the jurisdiction of Parliament, with a view to the establishment of a fair and reasonable rates structure which will, under substantially similar circumstances and conditions, be equal in its application to all persons and localities so as to permit the freest possible interchange of commodities between the various provinces and territories of Canada and the extension of Canadian trade both foreign and domestic, having due regard to the needs of agriculture and other basic industries.

The Committee, accordingly, advise that the Board of Transport Commissioners for Canada be directed to undertake a general freight rate investigation along the lines indicated in the preceding paragraph subject to such special statutory provisions as affect freight rates.

A. D. P. HEENEY,

Clerk of the Privy Council.

RAILWAY ACT

Chap. 234

National
freight
rates
policy.

336. (1) It is hereby declared to be the national freight rates policy that, subject to the exceptions specified in subsection (4), every railway company shall, so far as is reasonably possible, in respect of all freight traffic of the same description, and carried on or upon the like kind of cars or conveyances, passing over all lines or routes of the company in Canada, charge tolls to all persons at the same rate, whether by weight, mileage or otherwise.

Revision
of
tariffs.

(2) The Board may, with a view to implementing the national freight rates policy, require any railway company

- (a) to establish a uniform scale of mileage class rates applicable on its system in Canada, such rates to be expressed in blocks or groups, the blocks or groups to include relatively greater distances for the longer than for the shorter hauls;
- (b) to establish for each article or group of articles for which mileage commodity rates are specified, a uniform scale of mileage commodity rates applicable on its system in Canada, such rates to be expressed in blocks or groups, the blocks or groups to include relatively greater distances for the longer than for the shorter hauls; and
- (c) to revise any other rates charged by the company.

Disallow-
ance and
substitu-
tion.

(3) The Board may disallow any tariff or any portion thereof that it considers to be contrary to the national freight rates policy, and may require the company, within a prescribed time, to substitute a tariff satisfactory to the Board in lieu thereof, or may prescribe other tolls in lieu of the tolls so disallowed.

Exceptions.

(4) Subsections (1), (2) and (3) are subject to subsection (6) of section 328 of this Act and to the Maritime Freight Rates Act, and do not apply in respect of

- (a) joint international rates between points in Canada and points in the United States of America;
- (b) rates on export and import traffic through Canadian ports, where in practice such rates bear a fixed and long-standing relationship with rates on similar traffic through ports in the United States of America;
- (c) competitive rates;
- (d) agreed charges authorized by the Board under Part IV of the Transport Act;
- (e) rates over the White Pass and Yukon route;
- (f) rates applicable to movements of freight traffic upon or over all or any of the lines of railway collectively designated as the "Eastern lines" in the Maritime Freight Rates Act as amended by The Statute Law Amendment (Newfoundland) Act, chapter 6 of the statutes of Canada, 1949; or
- (g) where the Board considers that an exception should be made from the operation of this section. 1951 (2nd Sess.), c. 22, s. 7.

EQUALIZATION OF FREIGHT RATES

Introduction

The ensuing report is being respectfully submitted as a statement of the progress so far made by the Board in dealing with the equalization of freight rates throughout Canada in pursuance of the directions contained in P.C. 1487 of April 7, 1948, and the guidance to the Board now contained in Section 336 of the Railway Act, (which was enacted as Section 332A in 1951).

The report also contains an indication of the future progress which may be anticipated in this matter.

The Board has completed the first phase of the equalization of freight rates on March 1, 1955, by establishing on that date a new freight classification and a new scheme of "class" rates applied in connection with that classification, and the present therefore appears to be an appropriate time at which to make an interim report in the matter of equalization generally.

The long lapse of time since the issuance of Order in Council P.C. 1487 on April 7, 1948, and the relative completion of only the first phase of equalization on March 1, 1955, may well be a matter for query, but the answer lies in two circumstances, both of which are well known to those who have closely followed the history of freight rates in Canada in the last six or seven years.

The first is that, subsequent to the issuance of P.C. 1487, the governments of several of the provinces applied to the Governor General in Council for a Royal Commission on Transportation, to enquire, *inter alia*, into all phases of the railway rate structure, as some of the provinces did not consider that the provisions of P.C. 1487 were broad enough to achieve the final goal of equalization, because of the limiting clause that equalization was to be made only "under substantially similar circumstances and conditions".

The Royal Commission was appointed under the terms of Order in Council P.C. 6033 of December 29, 1948. This Royal Commission submitted its report to the Governor General in Council on February 9, 1951, recommending certain changes in the Railway Act. These changes, so far as freight rates are concerned, were enacted by Parliament in Chapter 22, 15-16 George VI, assented to December 21, 1951, and resulted in a declaration of a national freight rates policy in respect of equalization of rates, as now is embodied in Section 336 of the Railway Act. It may be noted that Section 336, as it was enacted in December 1951, declares the National policy in respect of equalization to be "so far as reasonably possible", whereas Order in Council P.C. 1487 of 1948 specifically limited any equalization to be accomplished "under substantially similar circumstances and conditions". The Order in Council has not been rescinded, but the later statutory amendment gave the Board much wider powers than it has ever before possessed in that regard.

The other circumstance is that the equalization of freight rates is a long, involved and difficult process, and a serious false step in any respect in adjusting the freight rate structure might cause a great deal of harm before it could be rectified. As was said by the Royal Commission on Transportation at page 125 of its report:

"The objective of equalization is something which can only be attained after considerable study by the Board and by the railways. Undoubtedly many serious problems are involved, for example the effect that the proposals may have on railway revenues, on established industries and on trade and market patterns. All these things are of the utmost importance."

By authorization of the Governor in Council, the Board obtained the services of an expert Traffic Adviser to assist in carrying out the equalization legislation, as the regular technical staff of the Board could not cope with this new and extensive task in addition to its current duties.

Definitions and Explanatory Notes

It would be helpful, we think, for a clearer appreciation of what follows, for us to define certain terms hereinafter used and give a few explanatory notes as to the different kinds of freight rates or tariffs, and the position they occupy in what is described as the freight rate structure, and how traffic is distributed amongst the various types of rates.

It might be well, therefore, for us to begin by indicating the meaning of "waybill analysis", "freight classification", "class" rates, "commodity" rates, and rates for "special services" and how they fit into the freight rate structure, and mentioned what rates or tariffs are subject to equalization, and the volume of traffic which moves under them, and later indicate the rates which are excluded from equalization.

Waybill Analysis: Each shipment made by railway is accompanied by a document known as a "waybill", which shows the origin and destination of the shipment, the weight, the rate charged, and the revenue earned by the railway. After P.C. 1487 was issued, the Board knew that more detailed information of traffic movements would be required for the task it had to perform, and therefore instituted a continuing study of such movements by requiring the railways to submit to the Board a copy of each waybill received at every station on their lines for one selected day in each quarter of the year.

Each waybill was then analyzed by the Board to determine the distance that the shipment had been carried, the region in which it had originated, and the region in which it had been delivered, also the kind of shipment it consisted of; and from these statistics a "waybill analysis" was compiled which showed the type of rate charged, the revenue received, the weight carried, the ton-miles, the average revenue per ton-mile, the average haul per ton, the car-miles that the cars were hauled, and the average revenue per car per mile. Totals were made for each kind of rate, for each region, and consolidated totals for all railways. By selecting four representative days in the year, it involved the study of 25,439 carloads and 165,277 less-than-carload shipments in 1949; 29,219 carloads in 1951; 25,957 carloads in 1952; and 23,879 carloads in 1953. Similar studies are continuing for 1954 and subsequent years.

Freight Classification: In order to provide the mechanics to ship as freight over 8,000 articles which are grown, produced or manufactured in Canada, these articles have been grouped into ten broad groups or classes, ranging from the highest to the lowest on the basis of value, bulk, liability to damage, and so forth, in a compendium known as the "Freight Classification".

Class rates: It is found that certain articles, although intrinsically different, have certain qualities in common which for rail shipping purposes enable the railways to include them in a particular class in their freight classification. The rates on such classes are called "class" rates and lend themselves to equalization, and, in calculating the tariff to apply on class rates, the railways make use of a mileage scale which is graduated according to distance.

Commodity Rates: Some articles which move in bulk quantities have special tariffs of their own because, generally speaking, such commodities move from specific points according to production to specific points of destination. These specific movements may be on a limited scale or involve a very large movement. For example, the grain crop moved by railway is entirely upon such commodity rates. The rates in these tariffs are known as "commodity" rates. Some of the principal commodity rates apply on agricultural products such as grain, flour, hay and straw, fruits and vegetables; on animals and animal products such as horses, cattle, sheep, hogs, dressed meats, butter and cheese; on mining products such as coal, coke, ores, sand, gravel, stone and salt; on forest products such as

lumber, pulpwood and firewood; on manufactures such as gasoline, pig iron, iron and steel articles, cement, fertilizers, paper commodities, woodpulp, canned fruits and vegetables; all of the foregoing articles *inter alia* are subject to equalization.

Rates for "Special Services": In addition to the foregoing, there are rates established for special services performed by the railways, such as refrigeration, heating in transit, switching of cars at terminals, stopping in transit for various purposes such as milling of grain, dressing of lumber, and so forth. This minor aspect of equalization will follow the adjustment of commodity rates.

"Competitive" Class and Commodity Rates: These are rates voluntarily published by the railways and are lower than normal rates in order to meet competition of the other carriers such as steamships and trucks. They are only published in areas where such competition forces the rates down below the normal rates established by the railways or prescribed by the Board. Competitive rates are not subject to equalization under the Act because, obviously, if competition is present in only one area and forces down the rates, there are no similar competitive rates in other areas, and therefore no equalization is possible or necessary.

Other Rates: Other rates which are not subject to equalization include the statutory grain rates in western Canada, known as the "Crow's Nest Pass" rates; the rates within the Maritime Provinces; the agreed charges, which are in reality contract rates made to meet competition; export and import rates via Canadian ports, which are issued to meet the competition of American ports; and international rates between the Canadian railways and the United States railways.

Movement of Freight Traffic Under the Different Rate Categories

One of the most important results of the waybill analysis is a showing of how freight traffic is distributed by tons, by revenue and by regions among the various types of rates published by the railways. While the class-rated traffic is low in volume, nevertheless it should be noted that class rates are highly important because they not only produce high revenue but in many cases are the basis for commodity rates. It would appear from the studies made that class-rate traffic produces a revenue of not less than \$125,000,000 per year for the Canadian railways. In various years class-rate revenue has amounted to 15 per cent to 23 per cent of the freight revenue on the intra-Canadian traffic of the railways; in addition, about 50 per cent of the railways' revenue comes from special commodity rates, many of which are based upon the class rates; for example, paper commodities are based upon percentages of the 5th Class rate, and woodpulp is based upon a percentage of the 10th Class rate. It may be said, therefore, that the class rates are a *sine qua non* to the freight rate structure.

The remainder of the traffic moves at competitive rates, statutory grain rates in western Canada, agreed charges, export and import rates, and international rates, none of which are subject to equalization.

Preliminary Approach to Equalization

The basic foundation for any freight rate structure consists of two parts—(1) the freight classification, and (2) the "class-rate" scale which must accompany the classification.

The Board felt it must first lay this foundation for equalization; otherwise the proceedings for equalization might well end in a chaotic condition.

Even "commodity" rates must be conditioned upon the classification to a large extent; the "class" in which an article is established in the freight classification indicates its general relationship to other commodities and what place it should reasonably occupy in the "commodity" tariffs; moreover the rules and conditions of carriage relating to all articles and commodities are contained in the freight classification.

The Board, therefore, initially turned its attention to the freight classification, to be accompanied by a new equalized class-rate scale, leaving the equalization of commodity rates to be dealt with after the freight classification and the class-rates scale had been established.

One of the first acts of the Board was to order uniformity in the classification rule which governs the mixing of different classes of freight in carloads. Formerly this rule was more liberal in permitting such mixtures in eastern Canada than in western Canada; since June 2, 1952, the more liberal rule has been applied throughout Canada.

It was thought necessary, before dealing with the various classes contained in the freight classification, to modify, subject to objection by any interested party, the existing freight classification. The classes were formerly numbered from 1 to 10, Class 1 being the highest class (except for some "multiples" of 1st Class on articles of extraordinary value) and Class 10 being the lowest class. This rigid arrangement of ten classes did not provide any flexibility for including additional classes which, as commerce has developed, are now necessary. The new classification will be based on substituting Class 100 for Class 1, and the lower classes, are then made upon percentages of Class 100. The lowest class will probably be 10 per cent of Class 100. It is now possible, theoretically, to have 90 classes instead of 10; in practice there should eventually be about 30 classes. In addition, there will be multiples of Class 100 for articles of extraordinary value.

Hearings and Conferences: The extensive work of the 1949 waybill analysis was completed in 1950 and hearings upon the general investigation directed by Order in Council P.C. 1487 were commenced at Ottawa on January 15 and continued on March 5, May 15 and September 10, 1951.

One result of this series of hearings was a submission in August 1951 (at the request of the Board) by the Railway Association of Canada of a "Study for the Equalization of Class Rates". The scale suggested in this study was, however, found to be on a high level and was declared by the Board to be unsuitable for equalization purposes at a subsequent hearing which was held at Ottawa on January 10, 1952, upon both the subjects of the General Freight Rates Investigation and the implementation of the National Freight Rates Policy of Equalization enacted in December 1951.

With a view to accelerating progress with respect to both subjects, a round-table conference was held by the Board at Ottawa on March 18, 19 and 20, 1952. This conference was attended by numerous Counsel and various freight rate experts representing country-wide interests. The conference suggested that any equalized rate scale should be constructed upon a weighted basis, that is: taking into account the volume of traffic moving throughout the country in the ten "Classes" of the Canadian Freight Classification, transposed into a scale which would produce an average rate for each class for each mileage block, and which would represent the aggregate revenue of all the movements at each mileage.

It was further suggested that the Board should develop and prescribe such a scale to become effective after a delay of twelve months, during which period hearings could be held and any objections received. In this manner it was hoped that consideration of a multiplicity of scales which might otherwise be

presented to the Board, and require time-consuming analysis and comparison in order to arrive at a decision, would be avoided. This hope was partially realized because only three additional scales were subsequently offered.

Following the round-table conference above referred to, the Board with its Adviser proceeded informally to obtain helpful information available as to the construction and application of freight rate scales from persons in the business would having expert general and local knowledge of the subject in various parts of Canada.

Likewise we obtained information with respect to class-rate equalization in the United States, because the Interstate Commerce Commission of the United States after many public hearings and study extending over 12 years had in 1951 successfully completed the task of converting the various regional class-rate structures of the major part of the United States into an equalized and uniform class-rate scale.

We appreciated the value of the practical and factual information upon methods of equalizing class-rate in the United States, as supplied to us by members and staff of the Interstate Commerce Commission.

Legal Aspects of Equalization: During the conference above referred to, certain legal questions were raised by Counsel for the railways and the provinces. On these matters the Board said in its Judgment:

"It was first intended that certain legal questions which would inevitably arise in any attempted equalization scheme would be submitted to the Supreme Court by way of a stated case before hearings on equalization would be proceeded with. In the meantime it was the intention of the Board to distribute a working paper on equalization for consideration of interested parties.

"Following several conferences between members of the Board and legal experts representing the provinces and railways, what is considered a more expeditious and satisfactory procedure was devised. It was accordingly decided that the Board would issue an order requiring the establishment of a class-rate scale which would be accompanied by a judgment dealing with the most important legal points arising from, or incidental to, the new class-rate scale or any other scale envisaged in the judgment or order. Likewise that neither the order nor the judgment would require to be implemented until sufficient time had elapsed to allow the Board to hear in various parts of Canada any objections which might be filed to the order, or any application for review of the judgment."

In the aforesaid Judgment the Board made decisions upon the legal questions referred to and the proceedings were thereby considerably expedited since no appeal was made therefrom.

Interim Uniform Class-rate Scale: Following these studies and within a period of approximately a year, a scale was evolved by the Board which became known as "Appendix A" and was promulgated by Judgment and Order (see 69 C.R.T.C. 306) on December 12, 1952, to become effective January 1, 1954, subject to any objection in the interval.

This scale was intended to be an interim scale, as was clearly indicated when the Board said at page 4 of the Judgment:

"We trust that the class-rate scale, which may be regarded as the foundation of the rate structure, while by no means final, will constitute a step forward beyond a working paper."

Regional Hearings: The Board then set down the interim scale for regional hearings and toured the entire country from Victoria, B.C., to St. John's, Newfoundland, during the six-month period from March to September, 1953, to afford parties an opportunity to show cause why the scale should not be established and to present evidence and make representations in respect of it.

In chronological order, the regional hearings held by the Board upon the interim scale were as follows:

<i>At</i>	<i>1953</i>
Victoria, B.C.	March 17
Vancouver, B.C.	March 19 and 20
Calgary, Alta.	March 26
Edmonton, Alta.	March 30 and 31
Regina, Sask.	April 10 and 13
Winnipeg, Man.	April 15 and 16
Port Arthur, Ont.	April 20
Windsor, Ont.	June 8
London, Ont.	June 10
Toronto, Ont.	June 15
Halifax, N.S.	July 2 and 3
St. John's, Nfld.	July 8
Charlottetown, P.E.I.	July 14
Montreal, Que.	September 14 and 15

At these hearings various suggestions were received concerning adjustments to the Board's interim scale. The main representations, however, were reserved for what was expected to be the final hearing beginning October 5, 1953, at Ottawa. At this hearing the two principal railways each suggested a new class-rate scale. These scales differed from the Board's interim scale and differ from each other. Counsel for the provinces and others asked for time in which to consider these two new scales.

Temporary Reduction of 5% in Western Canada, and Increase of 10% in Eastern Canada: The Board was dissatisfied at this stage with the slowing-down of the progress of equalization, and was concerned with the fact that the western provinces had up to that time received no benefit from the equalization statute. An Order was therefore issued, No. 82339, of October 9, 1953, requiring a reduction of 5 per cent in the class rates within western Canada, and permitting a counter-balancing increase of 10 per cent within eastern Canada, to become effective on November 15, 1953. This action narrowed the gap between the class-rate scales of western Canada and eastern Canada until the equalized scale could be determined.

Further Hearings: Hearings on November 30 and December 1, 1953, became necessary. At the hearing of November 30, 1953, Counsel for the Province of Alberta asked to be permitted to submit still another scale, which was referred to as a "compromise scale", and a further hearing, from January 8-14, 1954, inclusive, was required for the purpose of considering this scale as well as the three other scales.

At the regional and final hearings the Board received 152 briefs, 87 exhibits, and 3,309 pages of evidence.

Completion of First Phase of Equalization

Prescribed Class-rate Scale, Appendix "B": Following the regional and final hearings at Ottawa, the Board issued a further Judgment, dated March 1, 1954, prescribing another scale in lieu of Appendix "A", to be known as Appendix "B", to become effective March 1, 1955.

In order that the work to be done by the railways in compiling the new freight tariffs would not be delayed, that Judgment was made as brief as possible and the Board stated that "Notes and Reasons for Judgment" would be issued later and would form the basis for an interim report to His Excellency the Governor in Council. The Notes and Reasons for Judgment have been issued and will shortly be made available by the Queen's Printer. They deal in much more detail with equalization than this interim report and may serve as a useful

reference for those interested in fuller implications of equalization. A summary, however, of the aforesaid Notes and Reasons is annexed hereto as "Schedule A".

The freight tariffs containing the new class rates and the new freight classification referred to in the Judgment and the Notes and Reasons for Judgment have been received by the Board. It may well be, however, that in the light of actual experience, further modifications to the class-rate scale adopted may be advisable but, subject to this qualification, the directions contained in Order in Council P.C. 1487 and in Section 336 of the Railway Act, as far as class rates are concerned, it is respectfully submitted, may be considered as having been complied with.

Thus, with the unflagging efforts of the Board's special staff and the valuable knowledge wholeheartedly contributed by representatives of the provinces, the shipping interests, and the railways since the enactment of Section 336 of the Railway Act, it has been possible within two years to evolve finally a class-rate scale which was thought worthy of being put into effect and subjected to the test of experience.

It required a further year for the railways to complete the technical work involved in compiling the freight tariffs for application between their ubiquitous stations.

The magnitude of this task of "putting in the foundation" can be judged by the fact that the freight classification and the printed class-rate tariffs of the two principal railways consist of over 3,700 pages of closely-packed names and figures. The tariffs required some millions of calculations to compute the station-to-station distances for all the points between which the class rates apply, and they stand as a tribute to the expeditious work of the officers and staff of the railways responsible for their compilation.

The Second Phase in Equalization

Commodity Rates: As stated previously, special commodity rates susceptible of equalization under the Act constitute about 50 per cent of the revenue of freight traffic and, compared with the revenue from class rates, are of considerably greater value. But, as already pointed out, generally speaking they could only be proceeded with after the basic foundation of the freight classification and the class rates had been established.

The commodity rate aspect of equalization is, therefore, the next step which the Board will set down for consideration. The following is a brief resume of the commodity rates which must be dealt with and may serve as an indication of the formidable nature of the next phase of equalization.

Mileage Commodity Rates: Section 336 of the Act specifically directs the Board's attention towards the establishment of a uniform scale of mileage commodity rates for each article or group of articles for which mileage commodity rates are specified.

The Board has made a brief survey of mileage commodity rates which are subject to equalization, and they fall principally into three categories:

1. Articles for which there are mileage scales in both eastern Canada and western Canada.
2. Articles upon which there are only mileage scales in eastern Canada.
3. Articles upon which there are only mileage scales in western Canada.

There are 16 mileage scales applicable to articles in category No. 1, that is: scales which are applicable in both eastern and western Canada on the same article. Of these 16 scales, one is exactly the same in both eastern and western Canada; one in western Canada is so close to that of eastern Canada that they can be readily equalized; two scales are somewhat farther apart, but can probably be equalized without much difficulty; and twelve scales are not close together so that careful consideration will have to be given to the problem of their equalization.

In category No. 2, i.e.: articles on which there are only published mileage scales in eastern Canada and not in western Canada, consisting of approximately 35 scales, consideration will have to be given as to what rates are applicable on these articles in western Canada and whether the eastern scale can be transplanted into western Canada, or an average made in some manner of the mileage scales of eastern Canada with the going rates in western Canada.

In category No. 3, i.e.: articles on which there are only published mileage scales in western Canada, consisting of approximately 39 scales, an investigation must first be made to determine if any of the rates in these scales are now higher than the reduced class rates; after that has been accomplished consideration must be given as to whether these western scales should be transplanted into eastern Canada, or an average made in some manner of the mileage scales of western Canada with the current rates in eastern Canada.

Specific Commodity Rates: In addition to the commodity mileage scales, there is a large number of "specific" commodity rates. These are rates which are published between specific stations.

The tariffs in which these rates are published also fall into three categories: (1) rates which are applicable in both eastern and western Canada; (2) rates which are only applicable in eastern Canada; and (3) rates which are only applicable in western Canada.

These rates, it is expected, will be the most difficult to deal with because they are made on a number of different bases and they apply upon large volumes of traffic; therefore they must be given the most careful scrutiny before equalization can be attempted. Some of the principal freight tariffs in this category apply on: Asphalt, Cement, Coal, Fish, Hay and Straw, Iron and Steel, Paper, Petroleum Products, Roofing Materials, and Woodpulp.

It may be said however that, in connection with lumber rates and domestic grain rates, the Board has already been able to take a step in the direction of equalization in both cases. In the case of lumber, a new scale has been adopted for western Canada as a whole. So far as grain for local delivery is concerned (i.e.: not Crow's Nest Pass grain rates) a new scale was devised about two years ago for application within western Canada pending a complete examination of the grain rate structure both east and west.

Procedure Contemplated to Expedite Equalization of Commodity Rates

In the interest of expedition, the Board thinks that a carefully considered plan should now be laid to deal with the equalization of commodity rates, adopting such procedure as was found most rewarding in dealing with class rate equalization. It is, therefore, the intention of the Board to have informal pre-conference discussions with representatives of the provinces and other parties interested therein with a view to deciding upon an agenda which will be discussed at a round-table conference to be called for the purpose of formulating an immediate and long-term plan of procedure.

Conclusion

In a sense it may be said with justification that, on the one hand, after some three years of labour, only the foundation of equalization has been laid. Figuratively speaking, it may develop settling cracks and the rough masonry will doubtless require further trimming. However, on the other hand, the Board trusts that this seemingly slow-moving and partial accomplishment will be viewed in the light of the difficulties inherent in an undertaking of such magnitude and the necessity of forestalling, as far as possible, any adverse impact on the national economy of Canada.

While devoting its attention to equalization, the Board has been called upon to deal with a particularly heavy roll of general cases, apart from special assignments such as investigations of grade crossings, its continuing work in connection with its relatively recently acquired authority over interprovincial oil and gas lines under the Pipe Lines Act and the imposed requirements for the establishment and enforcement by the Board of uniform accounting regulations for Canadian railways, under Section 387 of the Railway Act. Thanks, however, to the loyal and more than willing co-operation of the Board's staff (which, in some departments, at senior level, is presently undermanned and overworked) at least as yet the time-consuming task of equalization has not prevented the Board from keeping abreast of the increasing number of cases on its regular roll.

It is too early to conjecture what time will elapse before corresponding progress can be noted with respect to the equalization of commodity rates, but the Board ventures to express the hope that the time consumed will not exceed that which occurred in promulgating the class-rate scale, despite the fact that by comparison there are many more commodity rates which are subject to equalization.

The whole of the foregoing is respectfully submitted.

JOHN D. KEARNEY,
Chief Commissioner,

ARMAND SYLVESTRE,
Deputy Chief Commissioner,

FRANK M. MacPHERSON,
Commissioner,

H. B. CHASE,
Commissioner,

OVERTON A. MATTHEWS,
Commissioner.

OTTAWA, March 25th, 1955.

SCHEDULE A

Summary of the Principal Features of the Board's Notes and Reasons for Judgment date February 28, 1955

The principal highlights of the Board's Notes and Reasons for Judgment are as follows:

Section

1. Synopsis of Prior Judgments on Equalization.
2. A short historical review of some of the events which created the differences between the rates of western Canada and of eastern Canada and which originated the demand for equalization of these rates: the efforts of the Government and the Board to reduce the disparity; the two General Freight Rates Investigations ordered by the Governor in Council in an effort to bring about equalization; and, finally, the adoption of the National Freight Rates Policy by legislation in 1951.
3. A description of the present class-rate structure, with its many ramifications so far as class rates are concerned, for the purpose of indicating the streamlining and greater uniformity that can be expected to take place by the adoption of equalization. The new uniform equalized scale replaces three complete regional class-rate structures, namely: the Ontario-Quebec region, the Lake Superior region, and the Prairie-Pacific region, leaving the fourth region, i.e.: the Maritime Select Territory, undisturbed except to apply the new freight classification to the Maritime tariffs; included in the replacement are nine mileage scales and thousands of specific regional and inter-regional rates.
4. A reference to the freight classification and the manner in which it has been revised to conform with the new class-rate structure.
5. A reference to the submission of scales offered by the Canadian National Railways, the Canadian Pacific Railway Company and the Province of Alberta, as substitutes for the Board's interim scale, with a brief statement of the basis on which these substitute scales were computed.
6. A statement as to the action of the Board on October 1953 in ordering a reduction of 5 per cent in western Canada and an increase of 10 per cent in eastern Canada, as a result of the Board's dissatisfaction with the lack of progress made in equalizing class rates up to that time. This measure was calculated to narrow the gap between the class-rate scales of western and eastern Canada and thus leave a lesser discrepancy to be equalized later. The paragraph includes the oral Judgment rendered thereon.
7. A technical review of the interim uniform scale for the information of freight experts and others who are interested in the method by which the original scale was constructed.
8. A brief commentary upon the regional and other objections to the interim scale, set forth by provinces, by other large organizations, and the railways. The principal features of these objections were the almost universal opposition to the breaking up of the large eastern triangular group running from Sault Ste. Marie to Windsor, Ontario, and Montreal, Quebec, (including Quebec City) in the making of freight rates between eastern and western Canada; the demand for larger rate groups in western Canada; the objection of Manitoba to the discontinuance of old methods of making freight rates; the objections of the Canadian Pacific and Canadian National that the proposed scale of the Board was too low and that it did not taper off sufficiently for the longer distances.

9. A constructive criticism of the four proposed scales by a well-qualified U.S. authority on transportation rates, introduced as a witness by the Province of Alberta, together with the Board's comments upon this evidence.
10. A detailed commentary on the grouping of stations for rate-making purposes, and an exposition of the Board's views upon the retention so far as possible, of the large eastern group for shipments to western Canada, and the extension of the mileage scale to 50-mile blocks over 1,500 miles instead of the 25-mile blocks previously suggested.
11. A review of the Appendix "B" scale prescribed for future application within Canada west of the Maritimes (and between the former territory and the Maritime Provinces to the extent of the changes made within the territory west of the Maritimes) giving the reason for prescribing such scale.
12. A comparison of what would have been the effects of the proposed scales with the prescribed scale in respect to the avoidance of disruption of trade and commerce, which would have occurred by the adoption of any of the three scales offered in substitution of the Board's scale.
13. An exposition of the unfortunate effect upon the volume of class-rated traffic caused by the cumulative 98.2 per cent increases which have been made in the five-year period following the end of the Second World War, together with a statement of the principles on which the Board proceeded in an endeavour to avoid similar results from the prescription of the Appendix "B" scale.
14. A list of subsequent submissions respecting equalization.
15. A modification of its preceding Judgment respecting differential rates via the St. Lawrence River and Great Lakes routes between eastern and western Canada.

The Board considers it might appropriately include herein the Conclusion of the Notes and Reasons for Judgment, because it sets forth in three brief paragraphs the results of the Board's findings, and an intimation of its future course of action with respect to class rates:

16. "By the use of a railway mileage table and the application of the new freight classification, the simple scale of Appendix 'B' provides a rate for each railway on any article, for any distance in Canada west of the Maritimes, and at the same rate for the same distance in any part of that territory, (except where rates are grouped at average or fixed mileages).

"This evolution in Canadian freight rates must of course be tested in the light of experience. We are entering an uncharted field in the equalization of rates on all normal class-rated traffic in all parts of Canada west of the Maritime territory. While the Board has endeavoured to exercise due care to prescribe a scale that has, so far, received relatively little criticism since it was promulgated nearly a year ago after extensive hearings throughout the country, the scale can hardly be expected to have no defects.

"Such criticism as has been received in the meantime, and which has not been resolved, as well as any defects not yet apparent, might, we think, be considered collectively after Appendix 'B' has been in effect for a sufficient period to test its merits. Consequently, the Board will closely follow for the ensuing year the results of the new rates through its waybill studies and make them available to the interested parties."

Following the Conclusion, there are included a comparison of the proposed and final class rate scales, and a reproduction of the prescribed Appendix "B" scale in full.

LIST OF APPEALS TO THE GOVERNOR-IN-COUNCIL
FEBRUARY 1, 1904, TO DECEMBER 31, 1955.

File No.	Subject	Decision
389	Bay of Quinte Ry. Crossing. C.P.R. Tweed, Ont.....	Allowed
1455	James Bay Ry. Co. v G.T.R. Co. Crossing near Beaverton, Ont.....	Dismissed
1781	G.T.R. Co. v City of Chatham, Ont. Street crossing.....	Dismissed
12992	Maniwaki Br., C.P.R. Train Service from Ottawa, Ontario.....	Ref. Back
2030	Tariffs of certain Yukon Railways.....	Dismissed
17716	C.P.R. Co. Longue Pointe Spur. Maisonneuve, Que.....	Dismissed
18787	South Hazelton Townsite v G.R.T. Co.....	Ref. Back
3452-30	J. T. Rochester v G.T.R.P. Co. re Cameron Bay.....	Dismissed
12912	Park Ave. Subway, Saint Louis, P.Q.....	Dismissed
17740	Lambton to Weston Spur and C.P.R. Co.....	Abandoned
C. 3322	Toronto Viaduct.....	Dismissed
16177	C.P.R. Co. v Mountain Lumber Manufacturers' Assn. re Lumber rates..	Withdrawn
19024	C. Miller of Toronto v G.T.P.R. Co. re Station at Prince George, B.C..	Dismissed
17716-10	C.P.R. Co. v Town of Maisonneuve, P.Q. Highway Crossing.....	Dismissed
22681-25	City of Montreal, Que. v C.N.R. Co. Siding across Stadacona and Marlboro Streets, Montreal, Que.....	Abandoned
21418	City of Prince George, B.C. re Location of G.T.P.R. Co. Station between Oak and Ash Streets.....	Dismissed
26169	G.T.P.R. & C.N.R. Cos. re Interswitching at Eastern Public Cattle Market, Montreal, Que.....	Abandoned
21660	C.N.O.R. Co. v Twp. of Loughboro. Ontario.....	Dismissed
17040	C.P.R. Co. re Lambton to Weston Spur, 2nd Appeal.....	Ref. Back
27693	City of Hamilton, Ont. v G.T.M. Co. re passenger service on N. & N. "Beh". between Hamilton and Burlington Beach and Town of Burlington, Ont.....	Abandoned
27840	Winnipeg B. of T. re 15% increase in Freight Rates.....	Dismissed
28493-3	Town of Lambert, P.Q. re increase in rates on M. & S.C. Ry.....	Dismissed
28230	City of Hamilton, Ont. re Kinnear Yard.....	Ref. back
12021-70	North Toronto Grade Separation.....	Dismissed
29040-2	National Dairy Council of Canada on behalf of Ice Cream Manufacturers, re classification of Ice Cream.....	Ref. back
C. 955	Proprietors' League of Montreal, P.Q. re increase in B.T. Co.'s rates....	Dismissed
30424	City of Windsor, Ont. against Order 30028, re C.P.R. Freight shed across Caron Ave., Windsor, Ont.....	Dismissed
29996	City of Toronto, Ont. re General increase in Freight Rates.....	Ref. back
C. 955	City of Toronto, Ont. re Increase in rates of B.T. Co.....	Ref. back
23092-2	C.N.R. re crossing Pointe aux Trembles Ry. at Pointe aux Trembles, P.Q.	Ref. back
30380-13	National Dairy Council of Canada, re 20% increase in Cream rates.....	Ref. back
30380	City of Toronto, Ont. re Express rates.....	Dismissed

LIST OF APPEALS TO THE GOVERNOR-IN-COUNCIL
FEBRUARY 1, 1904, TO DECEMBER 31, 1955—*Continued*

File No.	Subject	Decision
17112-27	Dominion Miller's Ass'n of Canada re flour arbitrariness over wheat for export.....	Dismissed
29040-2	National Dairy Council of Canada re Express Classification of Ice Cream..	Dismissed
30686-2	Province of Alberta and British Columbia re railway Tolls.....	Ref. back
30380-13	National Dairy Council of Canada, re 20% increase cream rates.....	Allowed
3023-16	N. St. C. & T. Ry. Co. re location of its line on Oak and Merritt Streets, Merriton, Ont.....	Withdrawn
C. 955-71	The Govt. and Attorney General of Ontario, the Cities of Montreal, Toronto, Hamilton, Ottawa and Brantford and the Union of Can. Mun. from Order 38777 re Telephone rates.....	Dismissed
32812-1	Govts. of Alberta, Sask. and Man. re Crows Nest Pass rates.....	Allowed
9754-22	Can. Shippers' Traffic Bureau, re claim against G.T.R. Co. in matter of freight overcharge.....	Dismissed
30686-2	Govts. of Alta., Sask. re rates on grain and flour to the Pacific Coast for export.....	Ref. back
34123	United Farmers of B.C. Fraser Valley Dist. Council, re freight rates on grain and grain products over C.P.R. and C.N.R.....	Dismissed
429-3	Consumers Glass Co. Ltd., Montreal, P.Q. re freight rates on glass bottles and jars.....	Dismissed
38316	Lakeside Milling Co. Ltd., Toronto, Ont. on behalf of itself and all other inland millers in Ont. re tariffs on grain and grain products.....	Abandoned
36800-1	Employees of M.C.R. Ry. Co. (N.Y.C.R.R. Co.) at Montrose, Ont. and others re alleged abandonment of the Montrose Yards.....	Dismissed
38625	Parish of N.D. du Bon Conseil, P.Q. v C.N.R. re crossing of Mitchell Station; Matter referred to the Dept. of Railways and Canals on May 10, 1934.....	Lapsed
39310-9	Town of Nicolet, P.Q. and His Worship Mayor H. N. Biron of Nicolet, re abandonment of operation of that portion of the Nicolet Subd. of the C.N.R. between St. Leonard Jct. and Nicolet, P.Q.: Matter referred to the Dept. of Railways and Canals on October 13, 1936.....	Lapsed
24271-1	Prov. of B.C., the Fraser Valley Surrey Farms' Co-operative Ass'n and the Dist. "B" Farmers Institute of B.C. re reduction in freight rates on feed grain and mill feed.....	Dismissed
39309-5	Prov. of N.B. re abandonment of portion of N.B.S. Ry. (C.P.R. Co.) known as Shore Line Subd. between Shore Line Jct. and Bonny River.	Dismissed
26901-62-3	Chishold Saw Mills Ltd. and the Edmonton Box and Shook Co., Edmonton, Alta. re rates on Lumber and Forest products from North Central Points in Alta. to Toronto, Ont.....	Dismissed
39310-25	Prov. of N.S., the M. of the Co. of Annapolis, the Town of Middleton, N.S., the Town of Bridgeton, N.S.M.W. Graves & Son, Ltd., Bridgeton, N.S., J. R. Ricks & Sons and the United Fruit Cos. of N.S. Ltd., against order of the Board in the matter of Joint application of the C.N.R. and C.P.R. Co. for Abandonment of operation of the line of the C.N.R. between Middleton Jct. and Granville Centre, N.S. Matter referred to the Dept. of Transport. May 27, 1939.....	Lapsed
39310-38	Town of Renfrew, Ont. from Order 58759, approving the abandonment of a portion of the C.N.R. Renfrew Subd. between Arnprior and Eganville.	Ref. back
28420	Mun. between Montreal and Valleyfield and other interests concerned, that Order No. 62062, be rescinded or the suspension of the execution of such order until Sept. 1, 1942, in the matter of application of the N.Y.C.R.R. for permission to discontinue trains Nos. 24, 25, 30, 31, 32 and 26 running between Malone and Valleyfield and Montreal.....	Ref. back

LIST OF APPEALS TO THE GOVERNOR-IN-COUNCIL
FEBRUARY 1, 1904, TO DECEMBER 31, 1955—*Concluded*

File No.	Subject	Decision
44482	An appeal from the judgment and Order of the Board No. 70425, dated March 30, 1948, in the matter of the application of the Railway Ass'n of Canada, dated October 8, 1946, for an Order of the Board authorizing a general increase of 30% in the freight rates.....	Ref. back
45582-4	From judgments and orders of the Board Nos. 74034 and 74512, dated respectively, which judgments and Orders together granted an increase of twenty percent in freight rates and certain increases in the rates on coal and coke.....	Dismissed
46920-2	The Maritime provinces and the Provinces of Manitoba, Saskatchewan, Alberta and British Columbia from the Judgment and Order of the Board dated March 6, 1953, which authorized a general increase of 7% in freight rates.....	Dismissed
26825-144	The Ontario Department of Highways from Order of the Board No. 81573, dated June 15, 1953, which authorized the Canadian National Railways to construct an industrial spur across certain highways near Picton, Ontario.....	Dismissed
12753-120	Oakville Commuters' Association from the Judgment and Order of the Board dated August 4, 1954, re complaint against the Canadian National Railways in respect of alleged discrimination.....	Dismissed
22773-7	Township of Scarborough from the Board's Order 86534, dated July 7, 1955, which authorized Canadian National Railways to construct trackage across highways in Scarborough.....	Pending

SUMMARY

DISMISSED.....	31
ALLOWED.....	3
REFERRED BACK.....	14
WITHDRAWN, ABANDONED OR LAPSED.....	10
PENDING.....	1
TOTAL.....	59

TRANSPORT COMMISSIONERS FOR CANADA

LIST OF CASES APPEALED TO THE SUPREME COURT FOR CANADA FROM
FEBRUARY 1, 1904 TO DECEMBER 31, 1955.

File No.	Subject	Decision
643	Montreal Terminal Ry. Co. v Montreal St. Ry. Co. Pius IX Ave. Jurisdiction.....	Allowed
1492	James Bay Ry. Co. v G.T.R. Co. Crossing Belt Line Spur. Question of Law.....	Dismissed
1455	James Bay Ry. Co. v G.T.R. Co. Under crossing at point near Beaverton, Ont. Twp. of Thorsh, Ontario.....	Dismissed
383	Ottawa Electric Ry. Co. and City of Ottawa, Ont. v Canada Atlantic Ry. Co. Bank St. Subway, Ottawa, Ont. Question of law.....	Dismissed
1621	Toronto Ry. Co. re High level Bridge over Don Improvement and tracks of G.T.R. and C.P.R. Co., Toronto Ont. Question of jurisdiction.....	Dismissed
589	Toronto Union Station, A. R. Williams, Expropriation Jurisdiction.....	Dismissed
C. 1680	Essex Terminal Ry. Co. and W. E. & L. S. R. Ry. Co. Crossing Twp. of Sandwich, Ont. Question of Law.....	Dismissed
C. 1309	Robinson v G.T.R. Ry. Co. Two-cent rate. Question of law.....	Dismissed
689	C.P.R. Co. v G.T.R. Co. Branch Line, London, Ontario, Jurisdiction...	Dismissed
1497	T. R. Robinson v C.N.R. Co. Spur at Winnipeg, Manitoba. Jurisdiction.	Dismissed
9627	Montreal St. Ry. Co. re rates, Mount Royal Ward. Jurisdiction.....	Allowed
C. 1419	Ontario Department of Agriculture v G.T.R. Co. re Station at Vineland, Ont. Jurisdiction.....	Dismissed
C. 3322	Toronto Viaduct, C.P.R. Co. Question of law.....	Dismissed
C. 4897	Fencing and cattle-guards Order 7474, Appeal of C.N.R. Co. Jurisdiction..	Allowed
C. 4492 C. 3378	City of Toronto, Ont. v G.T.R. Co. and C.P.R. Co. Commutation rates. Question of law.....	Withdrawn
13079	G.T.R. Co. and C.N.C.R. re spur in Scarboro Twp., Ont. Jurisdiction.....	Dismissed
C. 3269	G.T.R. Co. v British American Oil Co. re spur Oil rates. Question of law..	Dismissed
1319	G.T.R. Co. v City of Fort William, Ont. re location. Jurisdiction.....	Dismissed
13065	N. St. C. and T. Ry. Co. Jurisdiction.....	Dismissed
18580	Clover Bar Coal Co. and W. Humberstone v G.T.R. Co. and the Clover Bar Sand & Gravel Co. Jurisdiction.....	Dismissed
12682	Regina Rates Case. Question of law.....	Dismissed
16963	G.T.P.R. Co. v British American Oil Companies. Jurisdiction.....	Dismissed
C. 3269	G.T.P.R. Co v A. E. Purcell, Saskatoon, Sask. Jurisdiction.....	Dismissed
15530 15530-1	G.T.P.R. Co. & C.P.R. Co. v Canadian Oil Companies. Jurisdiction....	Dismissed
20062 27095	B.C. Elc. Ry. Co. v V. & E. Ry. Co. v City of Vancouver, B.C. Jurisdiction.....	Dismissed
1487	N.B. Chamber and W.E.C. Phair v C.P.R. Co. Jurisdiction.....	Allowed
*18578	C.N.R. Co. v W.A. Taylor. Jurisdiction.....	Dismissed
19435	G.T.R. Co. v City of Edmonton, Alta. Question of law.....	Dismissed
14329-8	Montreal Tramways and M.P. & I. Ry. Co. v Lachine Jacques Cartier & Maisonneuve Ry. Co. Jurisdiction.....	Allowed

LIST OF CASES APPEALED TO THE SUPREME COURT FOR CANADA FROM
FEBRUARY 1, 1904 TO DECEMBER 31, 1955—*Continued*

File No.	Subject	Decision
23009	City of Hamilton, Ont. v T.H. & B. Ry. Co. Jurisdiction.....	Allowed
21428	G.T.R. Co. v Hepworth Silicon Pressed Brick Co. Question of law.....	Dismissed
12020-70 9437-153	Toronto Ry. Co. and City of Toronto, Ont. v A.P.R. Co. Law and jurisdiction.....	Dismissed
C. 3935	City of Edmonton, Alta. v E.D. & B.C. Ry. Co. Question of law.....	Dismissed
27524	G.T.R. Co. v Bourassa of Laprairie, Que. Law and jurisdiction.....	Withdrawn
13622	G.N.W. Twlg. Co. re Gen. Order 162. Question of law.....	Abandoned
C. 3269	G.T.R. Co. v British American Oil Co. re spur oil rates. Question of law...	Dismissed
1319	G.T.P.R. Co. v City of Fort William, Ont. re location. Jurisdiction.....	Dismissed
13065	N. St. C. and T. Ry. Co. Jurisdiction.....	Dismissed
18580	Clover Bar Coal Co. and W. Humberstone v G.T.R. Co. and the Clover Bar Sand & Gravel Co. Jurisdiction.....	Dismissed
12682	Regina Rates Case. Question of law.....	Dismissed
17963	G.T.P.R. Co. v British American Oil Companies. Jurisdiction.....	Dismissed
16171	Ingersoll Tel. Co. et al v B.T. Co. Question of law.....	Dismissed
C. 3269	G.T.P.R. Co. v A.E. Purcell, Saskatoon, Sask. Jurisdiction.....	Dismissed
15530	G.T.P.R. Co. & C.P.R. Co. v Canadian Oil Companies. Jurisdiction...	Dismissed
20062 27095	B.C. Elc. Ry. Co. v V. & E. Ry. Co. v City of Vancouver, B.C. Jurisdiction.....	Dismissed
1487	N.B. Chamber and W.E.C. Phair v C.P.R. Co. Jurisdiction.....	Allowed
18578	C.N.R. Co. v W.A. Taylor. Jurisdiction.....	Dismissed
19435	G.T.R. Co. v City of Edmonton, Alta. Question of law.....	Dismissed
14329-8	Montreal Tramways and M.P. & I. Ry. Co. v —Lachine Jacques Cartier & Maisonneuve Ry. Co. Jurisdiction.....	Allowed
23009	City of Hamilton, Ont. v T.H. & B. Ry. Co. Jurisdiction.....	Allowed
41428	G.T.R. Co. v Hepworth Silicon Pressed Brick Co. Question of law.....	Dismissed
12020-70 9437-153	Toronto Ry. Co. and City of Toronto, Ont. v A.P.R. Co. Law and jurisdiction.....	Dismissed
C. 3935	City of Edmonton, Alta. v E.D. & B.C. Ry. Co. Question of law.....	Dismissed
16171	Ingersoll Tel. Co. et al v B.T. Co. Question of law.....	Dismissed
27524	G.T.R. v Bourassa of Laprairie, Que. Law and jurisdiction.....	Withdrawn
13622	C.N.W. Twlg. Co. re Gen. Order 162. Question of law.....	Abandoned
27840	Government of Man. and J.B. Ashdown Hardware Co. re 15% increase in rates. Jurisdiction.....	Abandoned
26981	C.P.R. Co. v Department of Public Works for Ontario crossing Twp. of Kirkpatrick. Question of law.....	Withdrawn
11118	E. & N. Ry. Co. Victoria Harbour Bridge. Jurisdiction.....	Abandoned
28439	Mn. of Burnaby, B.C. v B.C. Elc. Ry. Co. Communication rates. Jurisdiction.....	Abandoned
28950	City of Toronto v Toronto Terminal Ry. Co., re pipes under Bay, Scott and Yonge Streets Toronto, Ont. Question of law.....	Dismissed

LIST OF CASES APPEALED TO THE SUPREME COURT FOR CANADA FROM
FEBRUARY 1, 1904 TO DECEMBER 31, 1955—*Continued*

File No.	Subject	Decision
C. 3578	Wagenast re Brampton Commutation Rates. Question of law.....	Dismissed
C. 2987	Ottawa Elec. Ry. Co. re rates. Jurisdiction.....	Dismissed
30381	V.V. & E. Ry. Co. v Vancouver Harbour Commissioners and C.N.R. re Order 31647. Jurisdiction.....	Dismissed
28140	C.P.R. Co. Overhead crossing, lots 6 and 7, Con. 1, Eston Twp., Ontario...	Allowed
31531-1	Luscar Collieries Ltd. v N.S. McDonald and C.N.R. Jurisdiction.....	Allowed
32812-1	Governments of Alberta, Saskatchewan and Manitoba re Crows Nest Pass Rates.....	Allowed
34285	C.N.R. Co. re through rates via St. John and Ste. Rosalie, Gateways, Appeal allowed re movements through St. John and dismissed in respect of movements through Ste. Rosalie.....	Allowed (partly)
24822	Toronto Transportation Commission, re bridge over C.N.R. tracks at Main St., Toronto, Ontario.....	Dismissed
4000-3	Montreal Trams. Co. against Order 42501, as amended by Order 42773. Jurisdiction.....	Dismissed
16645-73	C.N.R. re opening for traffic portion of its lines Willington to Strathcona, Alta. Law and jurisdiction.....	Dismissed
6713-213	B.C.E. Ry. Co. from Order 42808. Jurisdiction.....	Dismissed
9437-7	M.L.H. & P. Consolidated, B.T. Co. Montreal Trams. Co. and Montreal Trams. Comm. re subway at D'Argenson St., Montreal, Que. Question of law.....	Dismissed
9437-319-13	M.L.H. & P. Consolidated, B.T. Co. Montreal Trams. Co. and Montreal Trams. Comm. re St. Antoine St. Subway, Montreal, Que. Question of law.....	Dismissed
9437-319-16	M.L.H. & P. Consolidated, B.T. Co. and City of Montreal, re proposed line between Longue Pointe and Eastern Junction, Que. C.N.R. Question of law and jurisdiction.....	Dismissed
32453-11	B.T.C. re St. Clair Ave. Subway, Toronto, Ont. Law and jurisdiction...	Dismissed
20161	B.T.C. re grade separation, Hamilton, Ont. Law and jurisdiction.....	Dismissed
C. 4704	C.E.A. and Ont. H. Elec. Comm. re rules for wires along and across Highways. Law and jurisdiction.....	Dismissed
34123-74	Govt. of Alberta re tariffs on grain and flour to Fort William, Westport and Armstrong and to Vancouver. Question of law.....	Dismissed
27929-40	P.M.R. and Lake Erie & Detroit River Ry. Co. from Order 45736. Jurisdiction.....	Allowed
37756	City of Toronto, Ont. re Eglinton Ave. Bridge in Village of Forest Hill, Ont. Jurisdiction.....	Allowed
26782-21	Quebec Ry. L. & P. Co. re Charlesbourg Road Subway. Law and jurisdiction.....	Dismissed
35594	City of Windsor, Ont. re Bridge over C.N.R. on Sandwich St., Walkerville, Ont. Jurisdiction.....	Dismissed
38702	C.P.R. Co. v C.N.R. against Order 50139 re agreement dated Jan. 29, 1929. Question of law.....	Dismissed
38856	Elizabeth Breg and Penn Coals Ltd. re compensation in respect of coal mines and minerals in and under right of way of N.A.R. Co.....	Dismissed
17716	City of Montreal, P.Q. re removal by C.P.R. Co. of structures and works erected at certain streets of Montreal along proposed branch line through Prefontaine, Maisonneuve and Mercier never completed. Question of law.....	Dismissed

LIST OF CASES APPEALED TO THE SUPREME COURT FOR CANADA FROM
FEBRUARY 1, 1904 TO DECEMBER 31, 1955—*Concluded*

File No.	Subject	Decision
588-59	City of Toronto, Ont. re subway structures at Carlaw and Gerrard Sts. Jurisdiction.....	Dismissed
34822-40	Provinces of N.S. and N.B. and P.E.I., the Transp. Comm. of the Maritime B. of T., The Halifax B. of T., the St. John B. of T., the Perth Co. B. of T., the Victoria Co. B. of T., Association Ship. of N.B., the P.E.I. Potato Growers' Assoc., Porter Bros. Ltd., and Austin Scales, re rates on potatoes. Law and jurisdiction.....	Dismissed
9437-319-46	C.N.R. v M.L.H. & P. Consolidated and the B.T.C. re Montreal Terminals. Question of law.....	Dismissed
37615	B.T. Co. and C.N.R. v Corp. of the Town of N. Toronto and the Corp. of Twp. of Etobicoke, Ont. re subway at 18th St., N. Toronto. Law and jurisdiction.....	Dismissed
26765-152	The Consumers Gas Co. of Toronto and B.T. Co. v C.N.R. City of Toronto and Twp. of Scarboro, Ont., re Victoria Park Ave. Subway. Law and jurisdiction.....	Dismissed
30513	Normental Ry. Co. and Normental Mining Corp. Ltd. Order 58001. Law and jurisdiction.....	Dismissed
36156-2	Q.R.L. & P. Co. re Order of the Board dismissing the application of the Q.R.L. & P. Co. in the matter of tariff of tolls for the carriage of passengers on the motor buses operating by the Co., between the Village of St. Jean de Boischatel and the City of Quebec.....	Dismissed
6949-2	C.E.R. Co. from Order 64408, re reduction of fares.....	Dismissed
44168	Brompton Pulp and Paper Co. Ltd. and C.N.R. (C.N.R. Co.), and C.N.O.R. Co., from Order of the Board No. 66708, dated 2nd day of November 1945. Question of law.....	Abandoned
44484	Application of the Bell Telephone Company of Canada for authority to construct and maintain its lines (buried cables) across and under certain public highways in the County of Middlesex, Ontario. B.T.C. v County of Middlesex. Question of law and jurisdiction.....	Allowed
45582	From judgment in re application of the Railway Association of Canada for authority to make a General increase of 20 per cent in its freight rates....	Allowed
26782-313	From Order of the Board No. 70832, dated the 26th day of June, 1948, authorizing construction of a viaduct over the line of the Canadian National Railways at Rimouski, P.Q. and apportioning the cost of construction and maintenance of the said viaduct.....	Allowed
45464-1	Canada Steamship Lines Limited, from Order of the Board No. 78767, dated April 16, 1952, directing the Canadian National Railways and the Canadian Pacific Railway Company to make a reduction in freight rates in accordance with Board's Circular No. 272, dated April 16, 1952, which was issued in implementation of subsection 5 of section 18, chapter 22, 15-16 Geo. VI.....	Pending
46920-1	The Railway Association of Canada on behalf of certain of its member companies from Judgment of the Board, dated February 21, 1954, in the Rate Base-Rate of Return Case.....	Dismissed
10041-150	The Bell Telephone Company of Canada from interim Order No. 82811, dated December 30, 1953, requiring that Company to furnish certain facilities requested by the Canadian National Railways. At the request of Canadian National Railways the Board rescinded Order No. 82811, and the application for leave to appeal was thereupon withdrawn.....	Withdrawn
33365-162	Swift Canadian Company Limited from Judgment of the Board dated June 10, 1955, in respect of Canned Dog Food manufactured and sold under the trade name "PARD".....	Dismissed

TRANSPORT COMMISSIONERS FOR CANADA

SUMMARY

DISMISSED.....	72
ALLOWED.....	18
ABANDONED.....	6
WITHDRAWN.....	5
PENDING.....	1
TOTAL.....	102

LIST OF REFERENCES BY THE BOARD FOR THE OPINION OF THE SUPREME COURT OF CANADA

FEBRUARY 1, 1904 TO DECEMBER 1955

C.P.R. and James Bay Ry. Co. (Location of branch line). B.T.C. File No. 590, 36 S.C.R. 42.

City of Toronto v G.T.R. and C.P.R. Cos. (Brampton Commutation Rate Case No. 2). 11 C.R.C. 365 B.T.C. File No. C. 4492.

British Columbia Electric Ry. Co.'s application for increased rates. No judgment delivered.

C.P.R. v G.T.R. (Myrtle Bridge Case). As to obligations under an agreement. B.T.C. File No. 23009. 17 C.R.C. 300.

City of Hamilton v T. H. & B. Rly. (Hunter St. Case) as to power of Board to direct a railway company to divert its line. B.T.C. File No. 23009. 17 C.R.C. 370.

City of Edmonton v Calgary & Edmonton Ry. (As to seniority at highway crossings). B.T.C. Files Nos. 22415 and 22436. 22 C.R.C. 182.

Western Canada Flour Mills Ltd. et al v C.P.R. and C.N.R. (re Vancouver wharfage charges). B.T.C. Files Nos. 33564-1 and 33564-5 38 C.R.C. 124.

Re Railway Grade Crossing Fund (Contributions therefrom in the case of highway diversion). B.T.C. File No. 26807-65-1. 40 C.R.C. 110.

Re Maritime Freight Rates Act. Interpretation as to powers of Board thereunder. B.T.C. File No. 34822. 41 C.R.C. 46.

St. Eugene de Guigues v C.P.R. (Re Angliers Railway Crossing). B.T.C. File No. 38839. 46 C.R.C. 401.

Re The Transport Act 1938 (in particular the provisions of S.35 in regard to Agreed Charges). B.T.C. File No. 43453. 55 C.R.T.C. 162.

APPENDIX "A"

LIST OF MEMBERS OF THE BOARD WHO HAVE SERVED OR ARE SERVING ON THE BOARD

Member's Name	Office	Appointment	Termination
Hon. A. G. Blair, K.C.....	Chief.....	1st Feb. 1904.....	31st Oct. 1904 (resigned)
Hon. M. E. Bernier.....	Deputy....	1st Feb. 1904.....	31st Jan. 1914 (served term)
James Mills.....	Commr....	1st Feb. 1904.....	31st Jan. 1914 (served term)
Hon. A. C. Killam, K.C.....	Chief.....	6th Feb. 1905.....	1st March 1908 (died)
Hon. J. P. Mabee, K.C.....	Chief.....	28th March 1908....	6th May 1912 (died)
D'Arcy Scott.....	Ass't.....	17th Sept. 1908....	16th Sept. 1918 (served term)
S. J. McLean.....	Commr....	17th Sept. 1908....	16th Sept. 1918 (reappointed)
Hon. Thos. Greenway.....	Commr....	17th Sept. 1908....	30th Oct. 1908 (died)
A. S. Goodeve.....	Commr....	4th April 1912.....	22nd Nov. 1920 (died)
Henry L. Drayton, K.C.....	Chief.....	1st July 1912.....	1st Aug. 1919 (resigned)
Hon. W. B. Nantel, K.C.....	Deputy....	20th Oct. 1914.....	19th Oct. 1924 (served term)
A. C. Boyce, K.C.....	Commr....	4th Oct. 1917.....	3rd Oct. 1927 (served term)
Dr. J. G. Rutherford, C.M.G.....	Commr....	17th Sept. 1918....	24th July 1923 (died)
Hon. F. B. Carvell, K.C.....	Chief.....	2nd Aug. 1919.....	9th Aug. 1924 (died)
S. J. McLean, LL.B.....	Commr....	16th Sept. 1918....	} 15th Sept. 1928 (reappointed)
	Ass't.....	6th Aug. 1919.....	
Calvin Lawrence.....	Commr....	4th Nov. 1921.....	4th May 1931 (died)
Hon. Frank Oliver.....	Commr....	21st Sept. 1923.....	20th Sept. 1928 (reached age of 75)
Hon. H. A. McKeown, K.C.....	Chief.....	16th Sept. 1924.....	28th Feb. 1931 (resigned)
Thomas Vien, K.C.....	Deputy....	5th Sept. 1925.....	31st Jan. 1931 (resigned)
Hon. T. C. Norris.....	Commr....	30th March 1928....	29th March 1938 (served term)
S. J. McLean, LL.B.....	Ass't.....	17th Sept. 1928....	16th Sept. 1938 (served term)
John A. Stoneman.....	Commr....	12th March 1929....	11th March 1939 (reappointed)
Hon. C. P. Fullerton, K.C.....	Chief.....	13th Aug. 1931.....	31st Dec. 1933 (resigned)
F. A. Labelle.....	Deputy....	16th Dec. 1931.....	15th July 1933 (died)
G. A. Stone.....	Commr....	16th Dec. 1931.....	15th Dec. 1941 (reappointed)
F. Nap. Garceau, K.C.....	Deputy....	16th Sept. 1933.....	10th April 1943 (reached age of 75)
Hon. Hugh Guthrie, K.C.....	Chief.....	12th Aug. 1935.....	3rd Nov. 1939 (died)
Hugh Wardrope.....	Ass't.....	8th Nov. 1938.....	8th Nov. 1948 (reappointed)
John A. Stoneman.....	Commr....	11th March 1939....	10th March 1949 (served term)
F. M. MacPherson.....	Commr....	21st Sept. 1939....	20th Sept. 1949 (reappointed)
J. A. Cross, Col., D.S.O., K.C.....	Chief.....	1st April 1940.....	30th June 1948 (resigned)
G. A. Stone.....	Commr....	15th Dec. 1941.....	(1st July 1947 (reached age of 75) (Reappointed—1st July 1947, to 30th June 1948)
Armand Sylvestre, K.C., LL.B....	Deputy....	18th April 1945.....	17th April 1955 (reappointed)
Hon. Mr. Justice M. B. Archibald..	Chief.....	1st July 1948.....	Resigned (Oct. 31, 1951)
H. B. Chase, C.B.E.....	Commr....	28th July 1948.....	27th July 1958
Hugh Wardrope.....	Commr....	8th Nov. 1948.....	7th Nov. 1958
W. J. Patterson.....	Commr....	1st April 1949.....	3rd July 1951 (resigned 1st Nov. 1950)
Hon. Mr. Justice J. D. Kearney....	Chief.....	1st Nov. 1951.....	30th Oct. 1961
O. A. Matthews.....	Commr....	1st Jan. 1953.....	31st Dec. 1962 (resigned 1st Sept. 1955)
L. J. Knowles.....	Commr....	1st Sept. 1955.....	31st Aug. 1965.

APPENDIX "B"

*List of Federal Public Acts Conferring
Jurisdiction on the Board of Transport Commissioners*

1. Bridges Act—Chap. 20, R.S.C. 1952.
2. C.N.R.-C.P.R. Act—Chap. 39, R.S.C. 1952.
3. Dry Docks Subsidies Act—Chap. 91, R.S.C. 1952.
4. Maritime Freight Rates Act—Chap. 174, R.S.C. 1952.
5. Pipe Lines Act—Chap. 211, R.S.C. 1952 and 1953 and 1954 amendments.
6. Radio Act—Chap. 233, R.S.C. 1952.
7. Railway Act—Chap. 234, R.S.C. 1952. This Act contains provisions, among others, with respect to abandonment of railway lines, express tolls, the Grade Crossing Fund, international bridges and tunnels, telegraph and telephone companies.
8. St. Lawrence Seaway Authority Act—Chap. 242, R.S.C. 1952.
9. Telegraphs Act—Chap. 262, R.S.C. 1952.
10. Transport Act—Chap. 271, R.S.C. 1952. This Act contains provision, among others, with respect to licensing and rate regulation of ships and agreed charges.

APPENDIX "C"

JANUARY 17th, 1956.

REPORT OF THE TRAFFIC DEPARTMENT FOR THE YEAR
ENDED DECEMBER 31, 1955.

Submitted herewith is the report of the Traffic Department of the Board for the calendar year 1955, setting out the number of Tariff schedules and ancillary tariff documents received for filing; also a brief summary of other work performed:

TARIFFS AND SUPPLEMENTS FILED

Rail—

Freight.....	32,807
Agreed Charges.....	176
Passenger.....	1,212
Sleeping and Parlour Car.....	53

Water—

Freight.....	177
Passenger.....	17
Express.....	1,365
Telephone.....	2,358
Telegraph.....	110
International Bridge.....	1

Total tariff schedules.....	38,276
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OTHER TARIFF DOCUMENTS FILED

Concurrences.....	237
Revocation Notices.....	10
Powers of Attorney.....	26
Revocation Notices.....	12
Total tariff documents.....	285
Total.....	38,561

MARITIME FREIGHT RATES ACT

For the period July 1, 1954 to June 30, 1955 inclusive, the detail of work performed was:

Rates checked.....	835,632
Extensions checked.....	417,816
Additions checked.....	8,189
Corrections issued.....	4,425
Orders issued.....	122

Reimbursement claimed.....	\$ 1,517,165.84
Reimbursement allowed.....	1,499,074.52
Net deduction.....	18,091.32

ORDERS ISSUED

During the year, in addition to Orders issued pursuant to the Maritime Freight Rates Act as mentioned above, the following Orders were issued:

Traffic	Water Licenses	Agreed Charges	Telephone Telegraph	Bridges Tunnels	Total
60	19	99	35	—	213

AGREED CHARGES

By amending legislation, assented to July 28, 1955, the provisions of the Transport Act as to Agreed Charges were materially altered, thereby affecting the Board's administration thereof. Before the amendment the Board was required to approve all agreed charges before they went into effect. The revised procedure requires, *inter alia*, only that the agreement be filed with the Board, and upon such filing, the agreement automatically goes into effect twenty days thereafter.

Under the former legislation, 17 new agreements were filed, and 44 amendments to former agreements; 52 charges were fixed by the Board. As at December 31, 1955, 95 agreements were in effect applicable to the traffic of 352 shippers.

WATER TRANSPORTATION LICENSES

Licenses, under Part 2 of the Transport Act, 1938, were granted as follows:—

Applications	Licenses	Ships	Area
9	9	75	Great Lakes
5	5	138	Mackenzie River
1	1	2	Yukon River

SUBSIDY RE MAINTENANCE OF TRACKAGE IN THE LAKE SUPERIOR DISTRICT

Under Section 468 of the Railway Act, reductions in freight rates on certain traffic were instituted May 1, 1952 predicated upon the annual cost of maintaining 551.5 miles of railway trackage between Sudbury and Fort William on the Canadian Pacific Railway and a like amount of mileage of the Canadian National Railways in the same area. The two railways thus extended to the traffic involved the reductions in rates ordered and are reimbursed as payment for the maintenance expenditure subject to a maximum payment of seven million dollars annually. The administration of the statute requires constant review of traffic volume, changes in type of traffic and length of haul, and of the amounts expended for maintenance. Adjustments are made from time to time in the level of the freight rate reductions in order to maintain the purpose and intent of the legislation.

FREIGHT RATE EQUALIZATION

Under the provisions of Order-in-Council P.C. 1487 of April 7, 1948 and Section 336 of the Railway Act, there became effective on March 1, 1955 equalized freight rates applicable to classification traffic, and known as "Class Rates". This constituted completion of the initial phase of the equalization proceedings, and was accompanied by a complete revision of the Canadian Freight Classification. Some 415 tariff schedules were filed by the various railways in implementation of the Board's findings.

GENERAL

Applications or formal complaints to the Board, dealt with by this department, totalled 363. A total of 3,233 communications emanated from this department during the year relating to its administrative functions in the handling of complaints; interpretation of tariffs or classification and the filing of same; furnishings rate information; also concerning powers of attorney, concurrences, free or reduced transportation; administration of the Maritime Freight Rates Act and the granting of water licenses under the Transport Act, 1938.

A. S. KIRK

Director.

APPENDIX "D"

FEBRUARY 14th, 1956.

THE SECRETARY,

BOARD OF TRANSPORT COMMISSIONERS FOR CANADA,
OTTAWA, CANADA.

DEAR SIR:—

I submit herewith my Annual Report and informaton regarding the work of the Engineering Branch of the Board during the past year, and attached herewith are details and summarized statement of works of the Engineering Department during the year 1955.

Yours very truly,

J. E. DUMONTIER,
Director of Engineering.

RAILWAY GRADE CROSSING FUND

The Railway Grade Crossing Fund was established in 1909 and funds have been made available since that time for the purpose of aiding actual construction work for the protection, safety and convenience of the public in respect of highway crossings of railways, within the terms and conditions provided in the Railway Act.

The amount voted to the Railway Grade Crossing Fund from 1909 to April 1st, 1955 was \$18,000,000.

Amount paid.....	10,679,122
Outstanding commitments.....	3,551,707
	<hr/>
	14,230,829
Balance available.....	3,769,171
	<hr/>
	18,000,000

As a result of the investigation conducted throughout the country on the highway-railway crossing problem directed by Order-in-Council P.C. 1953-52 of January 14, 1953, the Board submitted a report to Parliament, recommending certain amendments to the Railway Act. The Railway Act was amended during the 1955 Session of Parliament and the amendments received royal assent on June 28, 1955.

The amended Railway Act provides for the Railway Grade Crossing Fund to be increased from \$1,000,000. to \$5,000,000. annually from the 1st day of April, 1955; the contribution from the Railway Grade Crossing Fund that may be applied by the Board towards the cost of work actually done in respect of anyone crossing to be increased from 40% to 60% and the maximum contribution to be raised from \$150,000. to \$300,000.

A contribution from the Railway Grade Crossing Fund of 30%, not exceeding \$150,000., towards the cost of reconstruction and improvement of an existing grade separation is now permitted under the amended Railway Act.

A contribution from the Railway Grade Crossing Fund towards the cost of construction of a grade separation is now permitted if an existing crossing at rail level is closed or if substantially all highway traffic using it is diverted from the crossing.

The amended Act also provides that no amount from the Railway Grade Crossing Fund shall be applied towards the cost of work actually done in respect of any crossing, unless that crossing has been in existence at least three years prior to the making of the Order to apply the amount for that purpose.

After the Railway Act was amended with respect to the Railway Grade Crossing Fund, the Board, in accordance with the recommendations of its report on the railway-highway crossing problem in Canada, decided that in the case of installation of automatic protection at highway crossings, the apportionment of the cost after the contribution from the Fund of 60% should be the same for all future installations and that the portion of the cost to be paid by the highway authority, either provincial or municipal or both, should be 25% and the share to be paid by the railway should be 15% of the total cost of installation. This formula has been used since the Railway Act has been amended and it has been generally accepted by the various interested parties.

No such formula is used in the case of grade separations or reconstruction of existing separations. In view of the different conditions prevailing at the various crossings where grade separation is required it is considered that each application should be decided on its own merits.

The increased financial assistance provided by the Fund has resulted in a substantial increase in the number of applications for grade separations and automatic protection.

Through the cooperation of the various highway authorities and the railways the Board is able to advance, approve and make contributions to grade separations and highway crossing protections to the extent of the funds provided by the amendments to the Railway Act.

GRADE SEPARATIONS APPROVED IN 1955

Grade separations were approved during the year at the following points, and contributions were made towards the cost of construction out of the Railway Grade Crossing Fund:

Grade Separations	Contributions from Railway Grade Crossing Fund
Subway C.P.R. At mileage 87.03 Thompson subdivision at Thompson, B.C.....	\$ 300,000.00
Overhead Bridge, C.N.R. Third Ave. West in the Village of Senneterre, mileage 138.1 Oskalanee Subdivision, Quebec.....	58,560.00
Overhead Bridge, C.P.R. Salmon Arm District, mileage 70.85 Shuswap Subdivision, B.C.....	100,681.00
Overhead Bridge and closing one crossing C.P.R. Highway No. 69, (Trans Canada) at Foote's Bay mileage 125.60 MacTier Subdivision, Ontario.....	91,800.00
Road diversion and close one crossing C.N.R. Divert County Road No. 8 at Conc. 6 & 7 Twp. of North Fredericksburgh, mileage 197.5 Gananoque Subdivision, Ontario.....	28,600.00
Reconstruct Bridge C.N.R. Near Rochford Bridge mileage 68.0 Sangudo Subdivision, Alberta.....	44,400.00
Reconstruct subway; C.N.R. Highway No. 2 in the Township of Ekfrid, Mileage 23.1 Chatham Subdivision, Ontario.....	72,600.00

The following grade separations were approved during the year and contributions towards the cost could not be made from the Railway Grade Crossing Fund, under the terms of Section 265 of the Railway Act:

- Dept. of Public Works, B.C., authorized to reconstruct a subway under the right-of-way of the Esquimalt & Nanaimo Rly., near Victoria, B.C.
- Dept. of Highways, Ontario, authorized to construct an overhead bridge over the New York Central Railroad in Lot 13, Conc. 7 Twp. of Sandwich South, County of Essex, Ont.

Canadian Pacific Railway authorized to reconstruct Lejeune Street Bridge over its right-of-way in the City of Trois Rivières.

Dept. of Highways, Ont., authorized to construct an overhead bridge over the Chesapeake & Ohio Railway in Lot 13, Conc. 7, Twp. of Sandwich South, County of Essex, Ont.

Dept. of Public Works, B.C., authorized to reconstruct an overhead over the right-of-way of the C.N.R. at Douglas Street near the City of Victoria, B.C.

Dept. of Highways, Ont., authorized to construct an overhead bridge, Highway No. 401, across the C.N.R. in Lot 5, Concession 2, Murray Twp., mileage 2.2 Maynooth Sub., Ont.

Fry Cadbury Ltd. authorized to construct an overhead passageway across C.P.R. in the City of Montreal, mileage 3.78 Park Ave., Sub., Que.

British Columbia Toll Highways & Bridges Authority authorized to construct an overhead over the C.N.R. at Tucks Branch, Lulu Island, B.C., mileage 0.97.

British Columbia Toll Highways & Bridges Authority authorized to construct an overhead over the C.P.R. at mileage 136.14 Nelson Sub., B.C.

Dept. of Highways of Ont. authorized to construct a bridge on Highway 17, in Lot 10, Conc. 2, Twp. of Pembroke, Ont., mileage 90.15, Chalk River Sub., of the C.P.R.

Dept. of Highways of Ont. authorized to construct an overhead bridge on Highway No. 401, in Lot 8, Conc. 2, Nassagaweya Twp., mileage 17.25 Goderich Sub. C.P.R.

Dept. of Highways of British Columbia, authorized to construct an overhead bridge on the Agassiz-Rosedale Highway over the C.N.R. mileage 63.26 Yale Sub. B.C.

C.N.R. authorized to construct a subway at Sixth Street, Calgary, mileage 135.5 Drumheller Sub., Alta.

Dept. of Highways authorized to construct overhead on Highway No. 401 over C.P.R. at mileage 97.08 Kingston Sub. Twp. of Kingston, Ont.

Dept. of Public Works of Canada authorized to construct an overhead bridge at Leach, in Yoho National Park, B.C.

The C.P.R. is authorized to construct extensions to the subway at the Crossing of its Railway and First Street, East, Calgary, Alta., mileage 175.7, Brooks Sub.

The C.P.R. is authorized to construct an extension to the subway at First Street West, Calgary, mileage 0.1, Laggan Sub., Alta.

The C.P.R. is authorized to construct an additional span immediate to adjacent to the south side of existing James St. Subway in Fort William, Ont.

Dept. of Highways, Ont. authorized to construct an overhead bridge in Lot 6, Conc. 2, Twp. of Charlottetown, mileage 63.29 Cornwall Sub., Ont.

Dept. of Highways of British Columbia authorized to construct an overhead bridge over the C.P.R. at mileage 12.49 Shuswap Sub. B.C.

Dept. of Public Works authorized to construct an overhead bridge over the C.P.R. at mileage 1.64 Mountain Sub. B.C.

Dept. of Highways, Ontario, authorized to construct an overhead bridge over the C.N.R. in Lot 17, Brants Block, Twp. of Nelson, mileage 0.64, Milton Sub. Ont.

Dept. of Highways Ontario, authorized to construct an overhead bridge over the C.N.R. in Lot 17, Brants Block, Twp. of Nelson, mileage 0.61, Milton Sub., Ont.

Dept. of Highways Ont. authorized to construct an overhead bridge on Highway No. 401 across the C.N.R. in Lot 21, Conc. 1, Twp. of Elizabethtown, at mileage 127.95, Gananoque, Sub., Ont.

Dept. of Highways of B.C. authorized to construct an overhead bridge over the C.P.R. at mileage 96.7, Cranbrook Sub.

STATEMENT SHOWING TOTAL AMOUNT PAID FOR WORK DONE IN THE DIFFERENT PROVINCES, OUT OF THE RAILWAY GRADE CROSSING FUND AND SPECIAL VOTES —PERCENTAGE OF TOTAL EXPENDITURE IN EACH PROVINCE, AND PERCENTAGE OF POPULATION OF CANADA IN EACH PROVINCE, FROM 1909 TO DECEMBER 31, 1955

Province	Total Expenditure from the different Votes	Percentage of Total amount of Expenditure	Population of Province	Percentage of Popula- tion of Canada
	\$ cts.			
British Columbia.....	1,015,093 79	6.48	1,165,000	8.33
Alberta.....	975,817 94	6.24	939,000	6.73
Saskatchewan.....	712,374 54	4.54	831,000	5.95
Manitoba.....	474,122 50	3.04	776,000	5.55
Ontario.....	7,679,728 28	49.02	4,597,000	32.89
Quebec.....	3,320,064 69	21.19	4,055,000	29.00
New Brunswick.....	598,031 37	3.81	515,000	3.68
Nova Scotia.....	863,583 52	5.51	642,000	4.59
Prince Edward Island.....	27,209 21	.17	98,000	.70
Newfoundland.....			361,000	2.58
	15,666,025 84	100.00	13,979,000	100.00

EXPENDITURES FOR PROTECTION AT HIGHWAY CROSSINGS
1909 TO DECEMBER 31, 1955

Province	Railway Grade Crossing Fund	Per- centage of Total	Province and/or Municipality	Per- centage of Total	Railway	Per- centage of Total	Total
	\$ cts.		\$ cts.		\$ cts.		\$ cts.
British Columbia...	1,015,093 79	39.40	986,607 41	38.37	572,501 98	22.23	2,576,203 18
Alberta.....	975,817 94	29.09	1,772,059 59	52.85	605,620 70	18.06	3,353,498 23
Saskatchewan.....	712,374 54	36.55	867,372 02	44.59	369,922 60	18.86	1,949,669 16
Manitoba.....	474,122 50	41.60	274,750 62	24.10	390,837 33	34.30	1,139,710 45
Ontario.....	7,679,728 28	22.29	11,890,057 61	34.51	14,877,656 08	43.20	34,447,441 97
Quebec.....	3,320,064 69	38.87	3,905,690 16	45.73	1,315,375 53	15.40	8,541,230 38
New Brunswick....	598,031 37	31.84	661,412 88	35.21	618,745 51	32.95	1,878,189 76
Nova Scotia.....	863,583 52	44.01	733,117 36	37.36	365,391 39	18.63	1,962,092 27
P. E. Island.....	27,209 21	55.52	16,159 42	32.97	5,637 39	11.51	49,006 02
Newfoundland.....							
	15,666,025 84	28.03	21,109,227 07	37.76	19,121,688 51	34.21	55,896,941 42

ENGINEERING DEPARTMENT

February 9, 1956.

PROTECTION AT HIGHWAY CROSSINGS BY WIG-WAGS AND BELLS, FLASHING
LIGHT SIGNALS AND BELLS, AND ELECTRIC GATES

During the year there were 116 installations of automatic protection at railway crossings, in addition to some 74 cases of circuit improvement in connection with existing protective devices.

Applications for automatic protection at railway highway level crossings are made by Municipal and Provincial Highway authorities, sometimes by the Railways. Other cases are brought to the Board's attention by the officers of the Board. All applications do not result in installation of the protection applied for, but in the majority of cases all applications entail an inspection by an Engineer of the Board and his report for the Board's decision.

In the case of all installations the Board's Engineers made inspections and conducted a thorough test to ascertain if the installation had been made in accordance with the approved practice and plans, and if the protection was working in a satisfactory manner. An audit of all costs of protection installed was made by an Engineer of the Board. This involved the checking of all items of labour, material, as well as the original invoices. Recommendation was then made in connection with payment from the Railway Grade Crossing Fund, or special fund.

There were many inspections made during the year in connection with applications for highway crossing protection which did not result in installation, since as a result of the inspection it was found that conditions did not warrant the protection applied for.

HIGHWAY CROSSINGS OPENED, CLOSED, AND HIGHWAY DIVERSIONS

There were 183 new highway crossings opened during the year, and 31 closed, together with four highway diversions. The highway crossings opened involved cases where the railway companies wished to extend their tracks across the existing public ways, and where Municipal and Highway Authorities desired to cross existing tracks by new, or diverted highways.

Plans and profiles of the proposed crossings were carefully examined by Engineers of the Board, in order to endeavour to eliminate any objectionable features, such as obstruction to view, grades of approach, etc., and to bring about

the safest possible travel conditions. A great many of the cases applied for required an examination on the ground, and recommendations were made following the inspections. Inspections were made in connection with highway diversions to eliminate wherever possible existing railway crossings.

INTERLOCKING PLANTS, AND CHANGES TO PLANTS AND SIGNALS

Recommendations were made in connection with changes to 18 interlocking plants and 15 interlocking plants were inspected in connection with Operating Orders.

When applications are made by the railways for approval of plans, covering the installation of, and changes to, signals and interlocked switches at diamond crossings, bridges, or junctions, a thorough check of track and signal plant is made to ensure that the plant is designed to provide full protection for all train movements through the interlocking with signals and switches so arranged and interlocked mechanically, electrically, or both, to prevent trains from receiving conflicting indications.

Before the plants were placed in service, the Board's Engineer made a check in the field in all cases to ensure that circuits were installed in accordance with approved plan, and that the signals and switches functioned as intended. Recommendation was made to the Board in all cases in connection with the necessary operating Order before the plants were put in operation.

During the year approval was given to the installation of a traffic control system of signals on the Quebec North Shore and Labrador Railway from mile 340.0 to mile 357.0, Province of Newfoundland.

Approval was also given to the installation of, and changes to automatic signals on the Canadian National Railways and the Canadian Pacific Railway Company in various parts of Canada covering many miles of modernized signalling, the most extensive projects being on the Canadian Pacific Railway Company between MacTier and Pointe-au-Baril, Ontario, Mile 0.0 to Mile 48.5 Parry Sound Subdivision, and on the eastward track of the Canadian Pacific Railway Company Ignace Subdivision, Ontario, between Mile 89.1 and Mile 78.8; and on the Canadian National Railways in the Hamilton and Bayview area, Ontario, on the Oakville, Dundas, Grimsby and Hagersville Subdivisions, and between Clifton Junction and St. Catharines, Ontario, Mile 2.0 to Mile 15.0 Grimsby Subdivision.

All such signal installations are thoroughly inspected and checked by the Board's Signal Engineer to ensure that the signals are installed in accordance with approved plan, and that they are functioning as intended, before final recommendation was made to the Board for approval of the signals as installed.

BRIDGES

During the year there were 59 railway bridges and 31 overhead bridges and subways approved for construction and reconstruction. The use of heavier motive power has made it necessary to carry out various works capable of safely carrying the heavier rolling stock at speeds greatly in excess of those in existence some years ago. This involves strengthening and reconstruction of bridges and culverts. The plans in connection with these structures were all submitted and were examined by an Engineer of the Board, and recommendation was made to the Board in connection therewith. After the structures were completed, examinations were made in all cases by an Engineer of the Board to ascertain if the structures were built according to the approved plan and safe for the carriage of traffic.

In addition to the above, inspections were made of 78 bridges for safety of operation and recommendations were made for an Order of the Board authorizing the railway companies to operate over them.

CONSTRUCTION AND OPERATION OF BRANCH LINES AND INDUSTRIAL SPURS

The Engineering Department examined applications and plans in connection with the construction and operation over industrial spurs, and recommendations were made for 100 approving Orders.

MAINTENANCE OF TRACK AND STRUCTURES

One of the important duties of the Engineering Department of the Board is the inspection of track conditions to ensure safety of travel over approximately fifty-seven thousand miles of railway trackage in Canada under the Board's jurisdiction. The Board's Engineers throughout the year travelled over and inspected all the Main Lines of railway, and a considerable mileage of branch lines, to ensure the safety of track for public travel. Particularly close and intensive examination was made of any Subdivision where any accident took place to ensure that standard practice and standard precautions had been taken, and the trackage was being properly maintained.

TUNNELS, WATER, GAS, OIL AND SEWER PIPES UNDERGROUND MINE WORKINGS

In addition to the inspections enumerated above, plans were examined in connection with applications for water, gas and sewer pipes passing under the railways. In a number of cases these involved an inspection in the field.

COMPANY PIPE LINES FOR GAS AND OIL

The Pipe Lines Act places under the jurisdiction of the Board all company pipe lines defined as international or interprovincial.

In 1955, amended "Standard Regulations Regarding Pipe Crossings under Railways" and "Standard Regulations Regarding Pipe Line Crossings" were approved and General Orders issued to cover.

An Order was issued to Westcoast Transmission Company Limited authorizing that company to construct a 30 inch diameter line for the transportation of natural gas from the Pouce Coupe area in the Province of Alberta, down through the Fraser Valley in the Province of British Columbia to a point on the international boundary near Huntingdon. Secondly, extending the completion date until October 31st, 1957.

Trans-Canada Pipe Lines Limited was authorized to make certain changes in their route, to make deviations in the location of and to change the diameter for certain sections of the proposed gas line previously approved in 1954.

A separate order was issued in 1955 to Trans-Canada Pipe Lines Limited authorizing construction of the gas line from Sheridan, Ontario to Ste. Anne de Bellevue, Quebec with a branch line from Morrisburg to Ottawa-Hull, reducing the diameter of these lines from 24 inches and 16 inches to 20 inches and 12 $\frac{3}{4}$ inches respectively.

Authority was granted to Westspur Pipe Line Company to construct a 12 $\frac{3}{4}$ inch diameter oil pipe line from Midale, Saskatchewan to Cromer, Manitoba.

The Engineering Department wishes to express its appreciation of the co-operation extended to it at all times during the past year by officials and engineers of the Provincial Highways Departments, Municipalities, Railways, and Pipe Line Companies.

CONTRIBUTIONS FROM RAILWAY GRADE CROSSING FUND

Protection	Location	Railway	Per cent	Contributions \$ cts.
Two flashing light signals and one bell.....	St. Leger St. in the City of Kitchener, mileage 62-26 Brampton Sub-division, Ont.....	C.N.R.....	40	2,700 00
Two flashing light signals and one bell.....	Albert Street in the City of Regina, mileage 121 Regina Terminal Sub. Sask.....	C.N.R.....	40	3,860 00
Two flashing light signals, two short arm and one bell, in lieu of manually operated gates.....	Lothridge Ave., in the City of Hamilton, Ont.....	C.N.R.....	40	8,696 00
Improve sight lines.....	Northwest and southwest angles of Wadise Crossing near Darlington, mileage 67-59, Oshawa Sub., Ont.....	C.P.R.....	40	1,420 00
Improve approaches to grade.....	Crossing of County Road No. 5 at Foxboro Station, mileage 6-52 Campbellford Sub. Ont.....	C.N.R.....	40	480 00
Two flashing light signals, two short arm gates and one bell, in lieu of present protection.....	Gage Ave., in the City of Hamilton, Ont.....	C.N.R.....	40	7,960 00
Two flashing light signals and one bell.....	Florence Street in the City of London, Ont.....	C.N.R.....	40	1,940 00
Two flashing light signals and one bell.....	Route No. 18 in the Town of St. Vincent de Paul, mileage 5-53 Trois Rivieres Sub. Que.....	C.P.R.....	40	3,070 00
Four flashing light signals and two bells.....	Lindsay Road crossing and 9th Concession Road at Turnville, Ont.....	C. & O. Rly.....	40	3,940 00
Two flashing light signals, two short arm gates and one bell in lieu of watchman.....	Adelaide St. in the City of London, mileage 113-73 Galt Sub. Ont.....	C.P.R.....	40	3,410 00
Two flashing light signals and one bell.....	Highway No. 17 north of Coniston, mileage 110-4 Sudbury Sub. Ont.....	C.N.R.....	40	2,440 00
Two short arm gates, two flashing light signals and one bell in lieu of manually operated gates.....	Sherman Ave. in the City of Hamilton, Ont.....	C.N.R.....	40	8,560 00
Two flashing light signals, two short arm gates and one bell in lieu of manually controlled gates.....	Ottawa Street in the City of Hamilton, Ont.....	C.N.R.....	40	8,832 00
Two flashing light signals and one bell.....	Burnette Street in the City of New Westminster, B.C.....	C.N.R.....	40	1,120 00
Two flashing light signals and one bell.....	Highway No. 8 in the Twp. of Litchfield, mileage 54-3 Waltham Sub. Ont.....	C.P.R.....	40	3,090 00
Two flashing light signals and one bell.....	Crossing of the C.P.R. & C.N.R. interchange track and Dundas Street in the City of London, Ont.....	C.N.R.....	40	1,720 00
Two flashing light signals and one bell.....	Poirier Street in the Municipality of Charny, mileage 0-58 Bridge Sub. Quebec.....	C.N.R.....	40	2,320 00
Two flashing light signals and one bell in lieu of watchman.....	St. George Street, City of St. Thomas, mileage 0-64 Chatham Sub. Ont.....	C.N.R.....	40	2,036 00
Two flashing light signals, two short arm gates and one bell.....	55th Ave., in the City of Lachine, mileage 3-85 Winchester Sub. Que.....	C.P.R.....	40	10,080 00
Two flashing light signals, one bell in lieu of existing protection.....	Crossing of Speedvale Ave. (City Limits Road) and Woolwich Street (Elora Street) City of Guelph, Ont.....	C.P.R.....	40	3,350 00
Two flashing light signals and one bell.....	Church Street at Val David, mileage 39-58 St. Agathe Sub. Que.....	C.P.R.....	40	3,290 00

CONTRIBUTIONS FROM RAILWAY GRADE CROSSING FUND

Protection	Location	Railway	Per cent	Contributions \$ cts.
Two flashing light signals and one bell	Albert Street, Regina, Sask., mileage 93.5 Qu Appelle Sub. Sask.	C.N.R.	40	3,600 00
Improve sight lines.	Public crossing just east of Kamoke Station, mileage 10.52 Windsor Sub. Ont.	C.P.R.	40	100 00
Two flashing light signals and one bell with extra light units.	Brimley Road, Twp. of Scarborough, mileage 96, Oshawa Sub. Ont.	C.P.R.	40	200 00
Two flashing light signals and one bell	Provincial Highway No. 9 first public crossing west of Munson Jet., mileage 40.37 Deumheller Sub. Alta.	C.N.R.	40	5,636 00
Two flashing light signals and one bell with additional light units.	Highway No. 6 at Black Capes, mileage 70.18 Cascadia Sub. Que.	C.N.R.	40	2,760 00
Two flashing light signals and one bell	King St. in the Village of Hensall, mileage 32.75 Exeter Sub. Ont.	C.N.R.	40	2,380 00
Two flashing light signals and one bell	Highway No. 3 near Maunsell, mileage 56.94 Crowsnest Sub. Alta.	C.P.R.	40	4,200 00
Two flashing light signals and one bell	Lesperance Road (County Road No. 7) between Town of Tecumseh and King's Highway No. 2 mileage 102.88, Windsor Sub. Ont.	C.P.R.	40	2,582 00
Two flashing light signals and one bell with two short arm gates.	Woodward Ave., mileage 39.04 Grimsby Sub., City of Hamilton, Ont.	C.N.R.	40	6,000 00
Two flashing light signals and one bell	Highway No. 15 at mileage 0.36 Coronado Sub. near St. Paul Jet. Alta.	C.N.R.	40	4,000 00
Two flashing light signals and one bell and two flashing light signals, two short arm gates and one bell.	Jacques Cartier Street in the Town of Farnham, mileage 6.48 Adirondack Sub. and 0.2 Stanbridge Sub. Que.	C.P.R.	40	11,550 00
Two flashing light signals and one bell	First crossing east of the station at Cabano, mileage 42.80 Temiscouata Sub. Que.	C.N.R.	40	3,160 00
Two flashing light signals and two short arm gates, and one bell.	63rd. Ave., near 102nd Street in the City of Edmonton, mileage 95.76 Leduc Sub. Alberta.	C.N.R.	40	7,600 00
Two flashing light signals and one bell	Arnett Road near Albany Prince County, mileage 6.72 Borden Sub. Prince Edward Island.	C.N.R.	40	2,320 00
Two flashing light signals, two short arm gates and one bell in lieu of manually operated gates	Logan Ave. in the City of Toronto.	C.N.R.	40	3,260 00
Two flashing light signals and one bell	Crossing of Highway No. 16 just west of East Edmonton Station, Alberta.	C.P.R.	40	3,552 00
Two flashing light signals and one bell in lieu of existing wig-wag.	Tecumseh Road in the City of Windsor, mileage 110.77 Windsor Sub., Ont.	C.P.R.	40	2,200 00
Improve approaches to Grade and improve sight lines.	Crossing of Highway at mileage 71.25 Sussex Sub., N.B.	C.N.R.	40	740 00
Two flashing light signals, two short arm gates and one bell	Crossing at mileage 121.6 Carberry Sub. near Douglas, Man.	C.P.R.	40	9,640 00
Two flashing light signals, two short arm gates and one bell in lieu of mechanical gates.	Greenwood Ave. in the City of Toronto, Ont.	C.N.R.	40	7,730 00

Lengthen track circuit to protection.....	C.N.R.....	40	340 00
Two flashing light signals, two short arm gates and one bell.....	C.N.R.....	40	5,240 00
Two flashing light signals, one bell with special circuits.....	C.P.R.....	40	3,550 00
Two flashing light signals and one bell.....	C.N.R.....	40	1,928 00
Two flashing light signals at Perry Street and two flashing light signals at Aylmer Street.....	C.P.R.....	40	2,504 00
Two flashing light signals and one bell.....	C.N.R.....	40	2,780 00
Improve sight lines.....	C.N.R.....	40	2,840 00
Two flashing light signals and one bell.....	C.N.R.....	40	1,400 00
Two flashing light signals, without bell.....	C.P.R.....	40	2,930 00
Two flashing light signals and one bell.....	C.N.R.....	40	2,440 00
Two flashing light signals, two short arm gates, with additional light units in lieu of watchman.....	C.P.R.....	40	2,440 00
Two flashing light signals and one bell.....	C.P.R.....	40	4,400 00
Diversion and close one crossing.....	C.N.R.....	40	4,740 00
Two flashing light signals, two short arm gates and one bell.....	C.P.R.....	40	960 00
Subway.....	C.N.R.....	40	6,840 00
Improve sight lines.....	C.P.R.....	300,000 00	
Two flashing light signals, two short arm gates and one bell.....	C.N.R.....	60	900 00
Install timing relays in automatic protection.....	C.N.R.....	60	14,208 00
Two flashing light signals and one bell.....	C.N.R.....	60	1,620 00
One flashing light signal and one bell with extra one way lights.....	C.N.R.....	60	4,740 00
Rearrange circuits of Automatic Protection.....	C.P.R.....	60	5,832 00
Two flashing light signals and one bell.....	C.N.R.....	60	2,220 00
Improve sight lines.....	C.P.R.....	60	4,452 00
Improve sight lines.....	C.P.R.....	60	510 00
Two flashing light signals and one bell.....	C.N.R.....	60	45 00
Overhead Bridge.....	C.P.R.....	60	3,825 00
Two flashing light signals, two short arm gates and one bell.....	C.N.R.....	60	58,560 00
	C.P.R.....	60	16,320 00
Kerr St. in the Town of Oakville, mileage 21-98 Oakville Sub., Ont.....			
North Augusta Road, in Town of Brockville, mileage 124-63 Cornwall Sub., Ont.....			
Highway immediately west of station in the Town of St. Vincent de Paul, mileage 4-76 Three Rivers Sub., Que.....			
Dell Street in the City of Sudbury, mileage 5-18 Sudbury Sub., Ont.....			
Highway No. 3 at mileage 16-93 Port Burwell Sub., Ont.....			
Aylmer Street and Perry Street in the City of Peterborough, Ontario.....			
Second crossing east of the station at Cross Point, mileage 13-02 Cascapedia Sub., Que.....			
Crossing at mileage 51-73 Cascapedia Sub., Que.....			
County Road No. 1 between lots 18 and 19, Concession 3 Twp. of Pickering, mileage 84-33 Oshawa Sub., Ont.....			
Intersection of McDonnell Street and Bethune Street in the City of Peterborough, Ont.....			
Highway No. 11, mileage 36-31, Maniwaki Sub., Quebec.....			
Alexander St. in the City of Sherbrooke, mileage 0-22 Q.C.R. Connection Quebec.....			
Crossing of Station Street in the City of Gifford, mileage 2-77 Montmorency Sub., Quebec.....			
First Ave. in the Town of Wapella, Sask.....			
Crossing of Twin City crossroads near the Village of Rosslyn, mileage 12-3 Kashabowie Sub., Ont.....			
At mileage 87-03 Thompson Sub. at Thompson, B.C.....			
First public crossing west of the station at Edgerton, mileage 121-3 Unity Sub., Alberta.....			
O'Brien Blvd., mileage 6-78, Mount Royal Sub., City of Montreal, Quebec.....			
Route No. 49 in Plessisville, mileage 40-54, Danville Sub., Quebec.....			
St. Ambrose St. between Loretteville and Chateau d'Eau, mileage 8-8 Batiscan Sub., Que.....			
Victoria Ave. and McDonald Street in the City of Regina Sask.....			
Norfolk St. in the Town of Simcoe, Ont.....			
Highway No. 14 mileage 170-3, Wellington Sub., Alberta.....			
Crossing just east of Lens Station, mileage 60-39 Belleville Sub., Ont.....			
Highway No. 8 at mileage 8-78, Nashwaak Sub., N.B.....			
Val David Road, north of Prefontaine Station at Ste. Agathe des Monts, Que.....			
Third Ave. West in the Village of Semetierre, mileage 138-1 Oskalanee Sub., Que.....			
Crossing at Second Line East, mileage 13-10, Galt Sub., Ont.....			

CONTRIBUTIONS FROM RAILWAY GRADE CROSSING FUND

Protection	Location	Railway	Per cent	Contributions \$ cts.
Four flashing light signals, two short arm gates and two bells.....	Crossing of 82nd (Whyte) Ave., in the City of Edmonton, mileage 97-02 Leduc Sub., Alberta.....	C.P.R.....	60	10,080 00
Overhead Bridge.....	Salmon Arm District, mileage 70-85, Shuswap Sub., B.C.....	C.P.R.....	40	100,681 00
Two flashing light signals and one bell.....	Park Ave., in the City of Chatham, Ontario.....	C. & O. Ry.....	60	3,360 00
Two flashing light signals, two short arm gates and two bells.....	Wellington Ave. in the District of Burnaby, mileage 151-7, 2nd Sub., B.C.....	G.N.R.....	60	7,305 00
Three flashing light signals, 3 short arm gates and one bell in lieu of mechanical gates.....	Clarkson Road, Twp. of Toronto, Ontario.....	C.N.R.....	60	17,268 00
Improve grade of approaches.....	Bellamy Road, in the Twp. of Scarborough, mileage 323-1 Oshawa Sub., Ont.....	C.N.R.....	60	240 00
Two flashing light signals with special circuits.....	County Line Road west of the station at Hanover, mileage 25-80, Owen Sound, Sub., Ontario.....	C.N.R.....	60	4,320 00
Two flashing light signals and one bell.....	First crossing north of the station at Hilden, mileage 59-68, Bedford Sub., N.S.....	C.N.R.....	60	3,828 00
Two flashing light signals and one bell.....	Highway No. 3 near Sentinel, mileage 96-1, Crownsnest Sub., Alberta.....	C.P.R.....	60	4,680 00
Overhead Bridge and closing one crossing.....	Highway No. 69 (Trans Canada) at mileage 125-60, MacTier Sub., Ont.....	C.P.R.....	60	91,800 00
Two flashing light signals and one bell.....	Cedar Street in the Town of Dunnville, mileage 38, Dunnville Sub., Ont.....	C.N.R.....	60	3,840 00
Two flashing light signals and one bell.....	Smithville Station Road, County of Lincoln, mileage 17-39, Welland Sub., Ont.....	T. H. & B.....	60	4,869 00
Two flashing light signals and one bell.....	Mill Road in the Parish of Westfield, mileage 12-15 Saint John Sub., N.B.....	C.P.R.....	60	3,225 00
Two flashing light signals and one bell.....	Kipling Ave. in the Twp. of Etobicoke, mileage 11-07, Brampton Sub., Ont.....	C.N.R.....	60	5,670 00
Two flashing light signals and one bell.....	Marlin Grove Road in the Twp. of Etobicoke, mileage 11-73, Brampton Sub., Ont.....	C.N.R.....	60	5,940 00
Two flashing light signals and one bell.....	Provincial Highway No. 11 first crossing south of the station at Brora, mileage 9-6, Lanigan Sub. Sask.....	C.P.R.....	60	5,100 00
Two flashing light signals and one bell.....	Fletcher's Station, Halifax County, mileage 22-65 Bedford Sub., N.S.....	C.N.R.....	60	4,740 00
Two flashing light signals and one bell.....	Crossing at Penhold, mileage 86-3, Red Deer Sub. Alta.....	C.P.R.....	60	9,723 00
Two flashing light signals and one bell.....	Highway No. 2 near Nolan, mileage 98-55, MacLeod Sub. Alta.....	C.P.R.....	60	3,480 00
Improve sight lines.....	Crossing between Sec. 13 Twp. 44 Rge. 5 W4M and Sec. 14 Twp. 44 Rge. 5 W4M first crossing west of the station at Neath, Alberta.....	C.N.R.....	60	1,800 00
Two flashing light signals and one bell.....	Highway No. 23 near Monarch, Alberta.....	C.P.R.....	60	5,640 00
Two flashing light signals and one bell.....	Highway No. 2 near High River, mileage 37-73 McLeod Sub. Alta.....	C.P.R.....	60	5,820 00
Two flashing light signals and one bell.....	Intersection of Dalhousie and Clarence Streets in the City of Brantford, Ont.....	C.N.R.....	60	3,240 00
Reconstruct Bridge.....	Near Rochfort Bridge mileage 68-0 Sangudo Sub. Alberta.....	C.N.R.....	30	44,400 00

Two flashing light signals and one bell.....	Highway No. 23 in Notre Dame de la Providence, Quebec.....	C.P.R.....	60	4,230 00
Two flashing light signals and one bell in lieu of existing wig-wag.....	Venables Street in the City of Vancouver, B.C.....	G.N.R.....	60	2,110 00
Improve sight lines.....	Highway in the Municipality of St. Marie Salome, at mileage 7-04 L'Assomption Sub., Quebec.....	C.N.R.....	60	60 00
Two flashing light signals and one bell.....	Robinson Street in the City of Granby, Quebec.....	C.N.R.....	60	6,291 00
Two flashing light signals and one bell.....	Highway No. 56, at mileage 48-0, Dunville Sub., Ontario.....	C.N.R.....	60	3,150 00
Two flashing light signals and one bell in lieu of two wig-wag signals.....	Highway No. 13 near Wetaskiwin, mileage 38-46, Leduc Sub., Alta.....	C.P.R.....	60	7,080 00
Two flashing light signals and one bell.....	Crossing of Gravenhurst Pointe-au-Basil Road in the Twp. of McDougall, Ont.....	C.P.R.....	60	840 00
Improve sight lines.....	Menard Street in the Town of Roberval, Quebec.....	C.N.R.....	60	4,200 00
Two flashing light signals and one bell.....	Crossing of County Road No. 3 in Lot 19 Twp. of North Dorchester, mileage 22-12, St. Thomas Sub., Ont.....	C.P.R.....	60	1,314 00
Two flashing light signals and one bell.....	Crossing of Highway No. 30 one mile north of Balton, Ont., mileage 20-45, MacTier Sub., Ont.....	C.P.R.....	60	5,235 00
Two flashing light signals and one bell.....	Crossing of County Road No. 7 in Concession 15-16 Twp. of Normandy, County Grey, mileage 20-43, Owen Sound Sub., Ontario.....	C.N.R.....	60	3,060 00
Two flashing light signals and one bell.....	Crossing of Highway No. 48, 1-8 miles east of Agincourt, mileage 94-5 Oshawa Sub., Ontario.....	C.P.R.....	60	4,740 00
Two flashing light signals and one bell.....	Bayers Road, mileage 0-75 Chester Sub., Nova Scotia.....	C.N.R.....	60	3,360 00
Two flashing light signals and one bell.....	Highway No. 2 in the Township of Ekfrid, mileage 23-1, Chatham Sub., Ont.....	C.N.R.....	30	72,600 00
Two flashing light signals and one bell.....	Highway No. 22 in the Parish of Denmark, mileage 61-88, Grand Falls Sub., N.B.....	C.N.R.....	60	3,900 00
Two flashing light signals and one bell.....	Highway No. 22, mileage 59-58, Grand Falls Sub., N.B.....	C.N.R.....	60	4,440 00
Two flashing light signals and one bell.....	Highway No. 402, north of Exmouth Street, City of Sarnia, Ont.....	C.N.R.....	60	6,180 00
Two flashing light signals, with two light units on each approach lane of dual Highway No. 402 with additional signals North Exmouth St.....	St. Jean St. in the Town of Roberval, Que.....	C.N.R.....	60	5,916 00
Two flashing light signals and one bell with additional light units.....	Divert County Road No. 8 at Conc. 6 & 7, Twp. of North Fredericksburgh, mileage 197-5 Gananoque Sub., Ontario.....	C.N.R.....	60	28,600 00
Road diversion and close one crossing.....	Highway No. 11 east of Hearst, mileage 128-55, Kapuskasing Sub., Ont.....	C.N.R.....	60	4,340 00
Two flashing light signals and one bell with special circuits.....	John St. and Front St. in the City of Toronto, Ontario.....	C.N.R.....	60	17,928 00
Two flashing light signals and two bells, two short arm gates in lieu of present protection at John Street, and also two flashing light signals and two short arm gates in lieu of present protection at Front Street.....	Boulevard de Chutes in the Town of Beauport, Quebec.....	C.N.R.....	60	9,810 00
Two flashing light signals and one bell.....	Crossing at Highway No. 51 between Riviere Bleue and Sully, mileage 47-08 Glendyne Sub., Quebec.....	C.N.R.....	60	3,900 00
Two flashing light signals and one bell.....	Crossing of Highway No. 17 west of Glasgow Station, mileage 46-8, Kennew Sub., Ont.....	C.N.R.....	60	3,060 00
Two flashing light signals and one bell.....	Crossing of Highway No. 48 with the C.P.R. in the Twp. of Scarborough, mileage 85-63 Peterboro Sub., Ont.....	C.P.R.....	60	4,920 00
Improve sight lines.....	Crossing between Lots 8 & 9 Huron Road Con. Twp. of Goderich, mileage 35-01, Goderich Sub., Ont.....	C.N.R.....	60	1,950 00
Changes to existing protection.....	Highway No. 3 Canfield Jct., mileage 40-95, Canada Division, Ont.....	N.Y.C.....	60	462 00

CONTRIBUTIONS FROM RAILWAY GRADE CROSSING FUND

Protection	Location	Railway	Per cent	Contributions \$ cts.
Two flashing light signals and one bell in lieu of existing protection.....	Highway No. 3 near Canfield Jct., mileage 44.7 Cayuga Sub., Ont.	C.N.R.	60	3,252 00
Two flashing light signals and one bell.....	Highway No. 2 near Morinville, mileage, 20.1 Edmonton Sub., Alta.	N.A.R.	60	5,714 00
Synchronizing traffic lights with flashing light and bell.....	Parkdale Ave. in the City of Ottawa, Ont.	C.P.R.	60	1,140 00
Two flashing light signals and one bell.....	Crossing of highway at St. Jean Chrysostome, mileage 12.43 Diamond Sub., Que.	C.N.R.	60	5,370 00
Two flashing light signals and one bell.....	Crossing of Route No. 1 at Chamcook, mileage 23.03 St. Andrews Sub., N.B.	C.P.R.	60	5,085 00
Change circuits to protection.....	Crossing of highway at Malton, mileage 14.92 and 15.05 Brampton Sub., Ont.	C.N.R.	60	1,704 00
Two flashing light signals and one bell on C.N.R., two flashing light signals and one bell on C.P.R.....	Crossing of highway opposite Rideau River East of Hurdman Bridge, Ottawa, Ont.	C.P.R. C.N.R.	60	7,155 00
	Total			1,219,613 00

DISTRIBUTION OF CONTRIBUTIONS BY PROVINCES

BRITISH COLUMBIA.....	\$ 11,216.00
ALBERTA.....	128,757.00
SASKATCHEWAN.....	19,352.00
MANITOBA.....	9,640.00
ONTARIO.....	440,635.00
QUEBEC.....	178,330.00
NEW BRUNSWICK.....	17,435.00
NOVA SCOTIA.....	11,928.00
PRINCE EDWARD ISLAND.....	2,320.00
NEWFOUNDLAND.....	—
	<u>\$ 1,219,613.00</u>

REPORT OF THE COMMISSIONERS

55

THE STATEMENT BELOW SHOWS THE DIFFERENT WORKS WHICH WERE APPROVED FOR CONSTRUCTION BY ORDER OF THE BOARD ON RECOMMENDATION OF THE ENGINEERING DEPARTMENT AFTER STUDY OF THE APPLICATIONS AND PLANS, CHECKING OF ESTIMATES, INVESTIGATION OF COMPLAINTS AND ACCIDENTS, AND IN MANY CASES INSPECTION ON THE GROUND AND CONFERENCES WITH THE INTERESTED PARTIES, DURING THE YEAR 1955

Province	Highway Crossings Approved	Highway Crossings Closed	Widen Crossings	Construction and Operation over Branch Lines and Industrial Spurs	Pedestrian Crossings	Railway Bridges	Overhead Bridges and Subways	Highway Diversions	Less than Standard Clearances	Interlocking Plants and Changes to Interlocking through Interlocker	Crossings protected by Flashing Light Signals and Bell	Changes to Operating Circuits of Flashing Light Signals, and Bells, and Wig Ways	Electrically controlled Gates and Flashing Lights	Wire Crossings of Railways or Company Pipe Lines	Water, Gas, Oil and Sewer Pipes over and under Railways	Improve Sight Lines and Approach Grades	Location of Telephone Lines	Exemption from Fencing and Cattle Guards	Approval and Changes to C.T.C. and Block Signals	Pipe Crossings under or over Company Pipe Lines	Location of Company Pipe Lines	Route Map, Oil or Gas Lines	Relocate Railway Lines	Railway Connections	Construction of Oil or Gas Lines under Rivers	Location of Railway Lines	Road Crossings over Company Pipe Lines	Approval of Operation over and under Bridges	Abandonment of Operation of Railway Lines	Opening for Carriage of Traffic	Manually Controlled Gates	Mining under Railways	Tunnel	Total		
British Columbia..	24	3	...	17	1	12	9	1	3	1	2	2	1	1	5	5	3	5	21	1	4	...	1	22	1	...	1	146
Alberta.....	20	5	3	13	...	5	4	1	3	1	2	13	15	4	3	2	9	3	3	2	2	3	10	126	
Saskatchewan....	26	4	7	10	...	4	1	3	...	4	5	4	1	1	2	14	...	4	4	2	5	102	
Manitoba.....	36	6	3	16	1	9	...	1	1	3	2	2	2	1	...	17	4	3	2	1	6	1	...	116	
Ontario.....	51	11	14	34	5	13	13	5	7	4	5	41	15	1	6	10	23	12	15	19	2	2	1	1	...	1	5	28	2	3	1	2	...	393		
Quebec.....	20	...	25	10	...	11	3	1	4	4	1	20	12	4	2	2	...	2	11	...	1	...	...	...	1	...	1	6	4	1	...	...	1	146
New Brunswick...	1	1	...	...	...	3	...	...	3	...	4	1	...	...	...	3	...	...	1	...	...	...	...	...	...	...	...	1	1	1	...	...	...	20
Nova Scotia.....	1	2	1	1	1	1	4	1	1	2	1	15	
P.E. Island.....	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Newfoundland....	4	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6
Total	183	31	52	100	7	59	31	13	22	18	15	89	74	2	19	18	23	59	37	34	31	8	1	2	4	2	9	78	10	7	2	3	1	1,071		

ENGINEERING DEPARTMENT
February 9, 1956

APPENDIX "E"

OTTAWA, ONTARIO,
February 13, 1956.

Mr. C. W. RUMP,
Secretary,
Board of Transport Commissioners,
OTTAWA, ONTARIO.

DEAR SIR:

1. Herewith, the Annual Report of the Operating Department for the year ended December 31, 1955.

2. The accomplishment of the work, hereunder described, has necessitated the travelling of 647,385 miles by officers of this Department.

3. During the year 1955, approximately 27,209,531 passengers travelled on Canadian Railways; the passenger train mileage for the year totalling approximately 45,909,376 miles.

4. As an indication of the activities of this Department, the following table will be of interest:—

(a) Accidents investigated.....	2,985
(b) (i) Highway crossing accidents investigated.....	510
(ii) Other railway accidents investigated.....	2,475
(iii) Recommendations made by Operating Inspectors for protection, or other improvements at highway crossings.....	126
(c) Locomotives inspected.....	8,113
(d) Internal examinations of locomotive boilers.....	358
(e) Cars inspected.....	101,260
(i) Freight cars.....	91,274
(ii) Passenger equipment.....	9,986
(f) (i) Investigations of applications or complaints re train service changes.....	33
(ii) Applications or complaints re station services.....	102
(g) Applications re storage and handling of flammable liquids and gases.....	520
(h) Fire reports processed.....	402

5. For convenience all detail statements Nos. 1 to 15 are indexed as follows:—

GENERAL ACCIDENT STATISTICS

Statement No. 1—
Record of accidents on railways subject to the Board's jurisdiction.

Statement No. 2—
Nature of accidents showing number of passengers, employees and others killed and injured.

Statement No. 3—
Nature of accidents showing railways on which the accident occurred, and number of persons killed and injured.

HIGHWAY CROSSING ACCIDENTS

Statement No. 4—
Highway crossing accidents, describing protection; also showing all crossing accidents for a five year period ended December 31, 1955.

Statement No. 5—
Highway crossing accidents by Provinces for five-year period ended December 31, 1955.

Statement No. 6—
Showing various types of crossing accidents—Year 1955.

Statement No. 7—
Graphic chart showing motor vehicle registration, highway crossing accidents, with numbers killed and injured; 1934–1955.

Statement No. 8—
Graphic chart showing motor vehicles, accidents, killed and injured; 1934–1955.

Statement No. 9—
Graphic chart showing crossing accidents, motor vehicle registrations; 1940–1954

MECHANICAL STATISTICS

Statement No. 10—

Showing defects on freight cars reported by Board's Inspectors; also summary of cars inspected, number defective and total defects.

Statement No. 11—

Showing defects on passenger equipment reported by Board's Inspectors; also summary of cars inspected, number of defective and total defects.

Statement No. 12—

Showing number of defects on steam locomotives reported by Board's Inspectors; summary of locomotives inspected, number defective and total defects.

Statement No. 13—

Showing number of defects on locomotives, other than steam, reported by Board's Inspectors; also summary of locomotives inspected, number of defective and total defects.

Statement No. 14—

Showing crown sheets damaged on locomotives.

FIRE STATISTICS

Statement No. 15—

Summary of reports of fires in forested areas originating within 300 feet of track along railway lines under the Board's jurisdiction.

OPERATING

1. One of the main functions of the Board's Operating Department is to promote greater safety for the protection of the travelling public as well as for the safety of railway employees whose duties are associated with train operation.

In dealing with this particular phase of the Board's activities periodic informal conferences have been sponsored by the Operating Department in recent years. In addition to inviting the various Railways subject to the Board's jurisdiction to send delegates to these conferences, the Legislative Representatives of the Railway Transportation Brotherhoods are also invited to attend and participate in the discussions.

The Board's officers have been impressed with the wholehearted co-operation shown by those participating in these discussions, in dealing with safety matters relating to Railway operation. The conferences, in addition to presenting an opportunity of focussing attention on operating practices which require some consideration on individual Railways, undoubtedly result in promoting greater uniformity in the application of safety rules and principles on all Railways coming under the Board's jurisdiction.

2. During the year there were 102 applications received from the Railways for removal of Agents, replacing Agents with Caretakers or removing Caretakers.

Each application was investigated on the ground by an officer of the Department in consultation with municipal authorities and other interested parties. Some 72 of the applications have been disposed of and 30 are still under consideration.

3. During the year a total of 33 applications were received from the Railways involving major changes in passenger and mixed train services across Canada.

These applications were investigated on the ground by officers of the Department and after consultation with parties concerned, including the municipalities affected, reports and recommendations were submitted to the Board for its consideration.

4. Eight applications for permission to abandon portions of their lines were received from Railways subject to the Board's jurisdiction. Each of these applications involved joint investigations with officers of the Board's Engineering Department.

These applications were investigated on the ground and joint reports and recommendations submitted to the Board.

5. A total of 510 crossings were inspected during the year, reports and recommendations in each case being submitted to the Board. In 126 cases, recommendations were made with a view to providing additional safeguards at these crossings.

MECHANICAL

STATISTICS

Motive Power—

Number of locomotives.....	5,410
Reports of hydrostatic tests, etc.....	59,555

Inspection of Motive Power—

Locomotive Inspections.....	8,113
Locomotives found defective.....	2,614
Defects.....	4,516

Locomotive Boilers—

Applications Received from Railways.....	369
Internal inspections Made.....	358
Applications Granted.....	356
Applications Refused.....	1
Applications withdrawn after Inspection Made.....	1

Stationary Boilers—

Number of stationary boilers.....	1,054
Inspection reports.....	2,393
Inspections made.....	487
Fire protective appliance inspection reports.....	1,071

Safety Appliance and Equipment Inspections—

Freight cars inspected.....	91,274
Freight cars found defective.....	6,220
Defects.....	8,531
Passenger coaches inspected.....	9,986
Passenger coaches found defective.....	908
Defects.....	1,377

Inspection of Freight Cars for correct Tare Weight—

Number of cars Inspected.....	14,635
Number of cars found overdue for weighing for tare.....	354

Inspection of Cars for improper Air Brake Piston Travel—

Number of freight cars inspected.....	38,499
Number of freight cars with improper piston travel.....	1,890
Number of passenger cars inspected.....	5,652
Number of passenger cars with improper piston travel.....	20

Inspection and Testing of Air Reservoirs (Other than Locomotive)—

Number of reservoirs.....	4,960
Number of Inspection Reports.....	4,633

Inspection Activities

As the accompanying tables indicate, District Inspectors were active in the work of safety during the whole of 1955. Their duties involved investigation of accidents, inspections and reports on the condition of motive power and car equipment; safety appliances; air brakes; locomotive and stationary boilers; oil installations; steam heating installations, some of which featured package type boilers; pressure vessels, fire preventive appliances and fire fighting equipment, etc. Inspectors also investigated complaints, and presented recommendations in connection with specific conditions of motive power and rolling stock, equipment brought to the attention of the Board by representatives of Transportation Brotherhoods.

Diesel electric locomotives now comprise approximately one third of the total number of locomotives registered with the Board. These units operate in all parts of the Canadian Railway System so that mechanical inspectors must devote more and more of their time to the inspection of this type of motive power.

Presently, about 3500 steam locomotives are in service. Boilers on many of these locomotives were constructed some years ago and the Board's Inspection service in this connection, is designed to insure continued safety of these units. During the year, some 360 locomotive boilers were examined internally to ascertain their condition for further periods of service without removal of flues or other major boiler repairs.

In order to ascertain at first hand the operating performance of major and ancillary equipment, as the units hauled trains over the lines in 1955 Inspectors rode about 190 steam locomotives and 270 diesel electric locomotives. In all the Inspectors undertook about 13,000 miles of en route locomotive inspections.

Car Inspectors examined over 40,000 cars for piston travel and other air brake equipment conditions. Correction of adverse conditions was arranged where necessary.

Train Air Brake Testing

Throughout the year Inspectors were required to give attention to the operating performance of train air brakes. In this connection air brake tests were witnessed in various yards of all Railways in Canada.

Presently, Canadian Railways, through the Railway Association of Canada, are finalizing a Uniform Code of Air Brake Rules; these rules will embrace all train air brake testing procedures. The Board's technical staff is being consulted throughout the preparation of the Uniform Code. Moreover Railway proposals have been presented to the representatives of the Transportation Brotherhoods Organizations, and their submissions have been given consideration in the proposed code of rules.

It is expected that the adoption of the Uniform Code of Air Brake Rules will not only tend towards additional safety, but will provide advantages to Railways, especially with regard to the interchange of rolling stock equipment.

Motive Power Units Other Than Steam

Presently regulations pertaining to motive power units other than steam, i.e., diesel electric, electric, etc., locomotives, are in the course of preparation. The Bureau of Locomotive Inspection of the United States Interstate Commerce Commission, also is in the process of revising its locomotive inspection rules.

Since the locomotives of some Railway Companies in both countries are used in international service, the Board is endeavouring to arrange reasonable uniformity in the regulations issued by the two regulatory bodies. Specifically, it is hoped to reach agreement whereby certification cards carried in the cabs of locomotives used in international service will be mutually acceptable on either side of the border. This would seem to have important advantages for Canadian Railways.

Revision of Safety Appliances Standards

The Board's Safety Appliance Standards which contain specifications for hand holds, ladders, steps, couplers, running Board's, hand rails, etc., and are designed for the protection of Railway employees, especially those engaged in train service, have been revised and the proposals presented to Railways, Transportation Brotherhoods and other interested parties.

It so happens that the Bureau of Safety of the Interstate Commerce Commission of the United States, presently is engaged in the revision of its Safety Appliance Rules. Since the interchange of railway rolling stock equipment affects not only the Railways, but the commerce of the two countries, the Board's officers are maintaining close liaison with their counter-parts, in the Interstate Commerce Commission and hope to achieve reasonable uniformity in the regulations before they are finalized.

Locomotives Inventories—Major Railways

The table below indicates changes that are taking place in the motive power situation on major railways in Canada. The last few years have seen a rather sharp increase in the number of diesel locomotives installed. Correspondingly, there is a decrease in the number of steam locomotives being used. However, the total number of locomotives in use appears to be on the increase and no doubt this reflects the upward turn in the general level of railway activity in Canada.

Year	Steam Locomotives					
	Coal Fired		Oil Fired		Total	
	C.N.R.	C.P.R.	C.N.R.	C.P.R.	C.N.R.	C.P.R.
1950.....	2,224	1,429	249	261	2,473	1,690
1951.....	2,188	1,398	252	266	2,440	1,644
1952.....	2,134	1,361	283	261	2,417	1,622
1953.....	1,932	1,329	370	265	2,302	1,594
1954.....	1,702	1,262	431	260	2,133	1,522
1955.....	1,462	1,254	433	250	1,895	1,404

Year	Diesel-Electric Locomotives					
	Road Locos.		Switchers		Total	
	C.N.R.	C.P.R.	C.N.R.	C.P.R.	C.N.R.	C.P.R.
1950.....	56	87	121	103	177	190
1951.....	120	117	160	115	280	232
1952.....	202	159	193	133	395	292
1953.....	277	217	226	148	503	365
1954.....	349	311	266	148	615	459
1955.....	477	372	306	184	783	556

FLAMMABLE LIQUIDS, GASES AND EXPLOSIVES

Flammable Liquids and Gases: Handling and Storage on and adjacent to Railway Property

Under the provisions of General Order No. 716, applications for 488 bulk oil installations were received for approval of location and/or changes thereto. These, together with 31 applications in abeyance from 1954, were disposed of as follows:—

Approved and Orders Issued.....	492
Cancelled.....	18
In abeyance.....	9

519

The foregoing applications approved the location of 1594 storage tanks having a total capacity of 72,719,857 gallons. Of these, 176 were new installations and 43 were for temporary crude oil loading locations.

Applications for 28 installations under the terms of General Order No. 597 were approved for the handling and storage of liquified petroleum gases. This covered the installation of 36 storage tanks with an approximate storage capacity of 627,000 gallons.

The tank car movement of anhydrous ammonia for use in Agriculture has resulted in 12 applications for handling and storage on or near railway property.

Plans of all proposed installations were examined by the Board's Inspectors and in addition many field inspections were made during the year to ensure completion in accordance with the approved plans and safety practices.

Regulations for the Transportation of Explosives and Other Dangerous Articles in Rail Freight and Rail Express Service including Specifications for shipping Containers

Supplement No. 3 to these Regulations, approved by General Order No. 807 was issued April 1st, 1955 and Supplement No. 4 was approved by General Order No. 816 issued October 1st, 1955. Supplement No. 5 is in process for issue in April, 1956. General Orders 809 and 817 together with 15 Orders were issued in 1955 in connection with these Regulations. In addition to this, 69 Special Permits were issued for extraordinary shipments most of which were for shipping radioactive materials. In Supplement No. 4 to the Regulations a special container made to B.T.C. Specification 55 was approved for shipments of the radioactive isotopes, Cobalt and Iridium. The use of this container eliminates the requirement for a Special Permit for such shipments when the radioactivity does not exceed 300 curies.

Conferences have been held with shippers, Railroad Officials, manufacturers and those concerned with the transportation of explosives and other dangerous articles to aid in the development of safe and practicable means of assuring safe transportation. In particular, the meetings with the Chief Inspector of the Bureau of Explosives, New York City, and those interested in radioactive and oil shipments have been most useful. From the meetings with representatives of the railway and oil companies committee, a revision of General Order No. 716 has been recommended and this will issue in 1956.

Cylinders for Compressed Gases

Manufacturers have shown continued interest in the production of various types of compressed gas cylinders in Canada, as well as their importation from Europe. This has required conferences with manufacturers and inspection agencies concerning the appropriate rules and regulations. During the year, five Canadian firms were producing cylinders to B.T.C. Specifications 4B, 4BA and 41.

FIRE PREVENTION

Weather Conditions

Weather conditions across Canada during the fire season of 1955 varied greatly, with some regions receiving an abundance of rain while others, particularly the Northern Ontario Forest Districts and portions of the Province of Quebec, suffered long periods of extremely high fire hazard, coupled with severe lightning storms which started numerous fires.

Fire Statistics

Detailed statistics are shown in Statement No. 15 appended hereto, from which it will be noted that 323 fires occurred during the fire season of 1955, chargeable to Railway operations within approximately 14,000 miles of railway classified as forested territory. In addition 77 fires were also reported as originating and burning in ties in the track which did not spread or cause damage other than to track ties.

Railway Fire Patrols

The fire patrol requirements under the terms of paragraph 29 of General Order No. 548 were addressed to all railways concerned.

Statistics showing railway forested mileage upon which patrols are prescribed are as follows:

	Miles
Special section patrols prescribed on.....	2,487.21
Special power speeder patrols.....	1,526.10
Special section patrols on request.....	2,298.94
Special velocipede patrols.....	92.90
Other special patrols.....	12.10
Mileage in forested territory on which no special patrol required, detection, reporting and extinguishing of fires being a part of the regular duties of section forces and other employees.....	7,741.00
Total.....	13,958.25

On the above mileage it is estimated that approximately 1050 patrolmen are actively engaged in track patrol.

Inspection

Under the cooperative arrangements inaugurated in 1915 with the various Federal and Provincial Forest Services, 275 officers of such services were under appointment as Inspectors of the Board distributed as follows:—

Newfoundland.....	3
Nova Scotia.....	22
New Brunswick.....	16
Quebec.....	30
Ontario.....	88
Manitoba.....	6
Saskatchewan.....	7
Alberta.....	17
British Columbia.....	82
Government of Canada, Department of Northern Affairs and National Resources, National Parks Branch.....	3
Government of Canada, Northern Administration and Lands Branch, Yukon.....	1
	275

42 of the above officers have received appointment as Locomotive Fire Appliance Inspectors, distributed as follows:—

Nova Scotia.....	2
New Brunswick.....	5
Quebec.....	1
Ontario.....	25
Alberta.....	5
British Columbia.....	4
	42

During the fire season of 1955, these officers inspected the fire appliances of 939 locomotives, 50 locomotives were found defective involving 58 defects. In addition, fire appliances were inspected on 3608 locomotives by the Board's permanent staff, 35 locomotives were found defective involving 53 defects. The above makes a combined total of 4547 locomotive inspections made in connection with the Railway fire prevention.

FIREGUARDS, 1955

Railway	Mileage both sides of track to be accounted for exclusive of approved exemptions	Fireguard mileage constructed or maintained during year	Percentage completed
Canadian National.....	2,795.8	1,196.8	42.8
Canadian Pacific.....	3,051.45	1,821.5	59.7
Northern Alberta.....	17.0	15.3	90.5
	5,864.25	3,033.6	51.7

R. M. MACDONALD,
Director of Operation.

OPERATING DEPARTMENT

STATEMENT NO. 1.—PASSENGERS, EMPLOYEES AND OTHERS KILLED AND INJURED
ON RAILWAYS UNDER THE BOARD'S JURISDICTION FOR YEAR ENDED
DECEMBER 31st, 1955

Name of Railway	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Canadian National.....	1	245	28	835	146	410	1,259	175	1,490
Canadian Pacific.....	3	448	17	1,027	94	310	1,586	114	1,785
Algoma Central & Hudson Bay.....		2		3		6	8		11
British Columbia Elec- tric.....						4	3		4
Chesapeake & Ohio.....					1	4	4	1	4
Dominion Atlantic.....		3		16	1	4	24	1	23
Esquimalt & Nanaimo.....				7		11	12		18
Essex Terminal.....					1	1	2	1	1
Grand River.....		2		5		3	10		10
Great Northern.....		1		2	1	4	8	1	7
Lake Erie & Northern.....				2		1	3		3
London & Port Stanley.....						4	3		4
Montreal & Southern Counties.....					2	11	9	2	11
Napierville Junction.....		1					1		1
New York Central.....			1	5	9	4	19	10	9
Niagara, St. Catharines, & Toronto.....						4	3		4
Nipissing Central.....				6		15	5		21
Northern Alberta.....		1		4	2	4	7	2	9
Quebec Central.....		2	1	5	1	7	7	2	14
Quebec North Shore & Labrador.....					1		1	1	
Sydney & Louisburg.....					1	1	2	1	1
Thousand Island.....						3	3		3
Toronto, Hamilton & Buffalo.....				3		2	5		5
White Pass & Yukon.....			1	6			1	1	6
Totals.....	4	705	48	1,926	260	813	2,985	312	3,444

STATEMENT No. 2—PASSENGERS, EMPLOYEES AND OTHERS KILLED AND INJURED,
AND NATURE OF ACCIDENTS, FOR YEAR ENDED DECEMBER 31, 1955

Classification of accident	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Derailment.....		22	2	36		5	22	2	63
Collision head-on.....		54	2	12		1	6	2	67
Collision rear-end.....		20	7	28			11	7	48
Collisions, miscellaneous.....				3			3		3
Collision at Diamond Crossing.....		1		3			2		4
Collision with cars account open switch.....		23		13			6		36
Equipment struck in yard during switching or transfer movement in- cluding sideswipes of individual equipment in yards.....		8		18			17		26
Sideswipe.....		3		3			3		6
Public highway crossing protected by gates— manual.....						21	13		21
Public highway crossing protected by gates— automatic.....					4	9	7	4	9
Public highway crossing protected by bell.....					1	2	2	1	2
Public highway crossing protected by bell and wigwag.....					14	26	29	14	26
Public highway crossing protected by flashing lights and bell.....		49		5	22	45	52	22	99
Public highway crossing protected by watchman.....						4	2		4
Public highway crossing unprotected.....		11	2	35	124	522	405	126	568
Private crossing.....				6	19	41	44	19	47
Trespassing.....				3	71	73	141	71	76
Working on or about engine			1	174			175	1	174
Miscellaneous.....		20	4	259	1	11	284	5	290
Adjusting couplers, coupl- ing and uncoupling.....			1	50			51	1	50
Run down by engine or car between stations.....			5	3			8	5	3
Handcar—accident caused by handcar, motor or velocipede.....			6	125		23	106	6	148
Handcar, motor-car, velo- cipede struck by train.....			4	21			20	4	21
Crawling under cars.....				1			1		1
Crawling between cars, over couplers.....				6			6		6
Passing between cars, be- tween couplers.....			2	2			4	2	2
Struck by engine or cars on adjoining track.....			1	18			19	1	18
Struck by switch stand, water spout, mail crane or other projection.....				16			16		16
Crushed between cars and buildings, lumber piles..				6			6		6
Getting on and off pas- senger trains.....		96					95		96
Injured when taking coal or water.....				25			25		25
Rock slides, or other ob- structions on track.....		6		8			4		14
Rough coupling.....		4		44		5	45		53
Riding on pilot or foot- board of engine.....			1	1			2	1	1

STATEMENT No. 2—PASSENGERS, EMPLOYEES AND OTHERS KILLED AND INJURED,
AND NATURE OF ACCIDENTS, FOR YEAR ENDED DECEMBER 31, 1955—*Concluded*

Classification of accident	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Obstructions, overhead and on ground.....				18	1	4	21	1	22
Falling off top of car.....			1	15			16	1	15
Falling between cars.....			1	4			5	1	4
Application and handling of air brakes, starting and stopping of trains, adjusting slack.....		65		130		3	151		198
Employees getting off train.....				220			220		220
Employees boarding train.....				94			94		94
Slipping on ice.....				51			51		51
Doors closing and other minor accidents in baggage cars and coaches....		300		157		3	458		460
Run down by engine or cars at stations or in yards.....	2	2	7	18	1	3	32	10	23
Passing too close around end of string of cars.....				1			1		1
Caught by engine or car while throwing switch....				1			1		1
Falling off side or end ladders or cars.....				58			58		58
Handbrake — accidents while working handbrake.....				100			100		100
Handling freight or baggage.....				25			25		25
Loading and unloading O.C.S. materials.....				15		1	16		16
Work train equipment.....				10		1	10		11
Cars moved while being loaded or unloaded.....				5	1	5	10	1	10
Carmen working on or under cars on running track when moved.....				2			2		2
Chaining or unchaining cars.....				1			1		1
Coupling or uncoupling hose.....				23			23		23
Turning angle-cock.....				18			18		18
Coach window falling.....		4				1	5		5
Loads shifting in transit or switching.....				5		1	6		6
Falling or jumping off passenger train between stations.....	2	2					4	2	2
Cars running away not under control.....		15		18	1	3	13	1	36
Individual derailment of equipment in yard tracks.....			1	11			10	1	11
Caught between running boards.....				1			1		1
Fires occurring in passenger train equipment..				1			1		1
Totals.....	4	705	48	1,926	260	813	2,985	312	3,444

STATEMENT No. 3.—NATURE OF ACCIDENTS AND NUMBER OF PERSONS KILLED AND INJURED ON RAILWAYS FOR YEAR ENDED DECEMBER 31st, 1955

Classification of Accident	C.N.R.			C.P.R.			Miscellaneous Railways			Total		
	Acci- dents	Killed	Injured	Acci- dents	Killed	Injured	Acci- dents	Killed	Injured	Acci- dents	Killed	Injured
Deraiment.....	15	2	50	7	.....	13	.....	.....	.....	22	2	63
Collision head-on.....	4	1	9	1	.....	53	1	1	5	6	2	67
Collision rear-end.....	8	5	17	3	2	31	.....	.....	.....	11	7	48
Collisions, miscellaneous.....	2	.....	2	1	1	.....	.....	.....	.....	3	.....	3
Collision at Diamond Crossing.....	.....	.....	.....	2	.....	4	.....	2	4	2	.....	4
Collision with cars account open switch.....	5	.....	30	1	.....	6	.....	.....	.....	6	.....	36
Equipment struck in yard during switching or transfer movement including sideswipes of individual equipment in yards.....	9	.....	17	8	.....	9	.....	.....	.....	17	.....	26
Sideswipe.....	3	.....	6	.....	.....	.....	.....	.....	.....	3	.....	6
Public highway crossing protected by gates—manually.....	8	.....	13	5	.....	8	.....	.....	.....	13	.....	21
Public highway crossing protected by gates—automatic.....	6	3	9	1	1	.....	.....	.....	.....	7	4	9
Public highway crossing protected by bell.....	1	1	.....	1	.....	2	.....	.....	.....	2	1	2
Public highway crossing protected by bell and wigwag.....	14	9	11	10	3	12	5	2	3	29	14	26
Public highway crossing protected by flashing lights and bell.....	30	11	78	18	10	18	4	1	3	52	22	99
Public highway crossing protected by watchmen.....	.....	.....	.....	1	.....	2	1	.....	2	2	.....	4
Public highway crossing unprotected.....	188	69	258	166	52	232	51	5	78	405	126	568
Private crossing.....	22	10	29	15	5	14	7	4	4	44	19	47
Trespassing.....	80	42	42	50	21	30	11	8	4	141	71	76
Working on or about engine.....	90	1	89	77	.....	77	8	.....	8	175	1	174
Miscellaneous.....	91	2	95	187	3	189	6	.....	6	284	5	290
Adjusting couplers, coupling and uncoupling.....	25	1	24	26	.....	26	.....	.....	.....	51	1	50
Run down by engine or car between stations.....	5	3	2	2	1	1	1	1	.....	8	5	3
Handcar—accident caused by handcar, motor or velocipede.....	51	1	74	51	4	59	4	1	15	106	6	148
Handcar, motor-car, velocipede struck by train.....	16	3	17	4	1	4	.....	.....	.....	20	4	21
Crawling under cars.....	.....	.....	.....	1	.....	1	.....	.....	.....	1	.....	1
Crawling between cars, over couplers.....	4	.....	4	1	.....	1	1	1	1	6	.....	6
Passing between cars, between couplers.....	1	1	.....	3	1	2	.....	.....	.....	4	2	2
Struck by engine or cars on adjoining track.....	6	1	5	13	.....	13	.....	.....	.....	19	1	18
Struck by switch stand, water spout, mail crane or other projection.....	.....	.....	.....	11	.....	11	1	.....	1	16	.....	16
Crushed between cars and buildings, lumber piles.....	2	.....	4	4	.....	4	.....	.....	.....	6	.....	6
Getting on and off passenger trains.....	19	.....	19	73	.....	74	3	.....	.....	95	.....	96

Injured when taking coal or water.....	9	9	16	16	.....	.....	.....	.....	25	.....	.....	25
Rock slides, or other obstruction on track.....	2	3	2	2	.....	.....	.....	.....	4	.....	.....	4
Rough coupling.....	21	22	24	31	.....	.....	.....	.....	45	.....	.....	14
Riding on pilot or footboard of engine.....	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	53
Obstructions, overhead and on ground.....	9	9	12	13	1	.....	.....	.....	2	.....	.....	1
Falling off top of car.....	11	10	5	5	.....	.....	.....	.....	21	.....	.....	1
Falling between cars.....	1	1	4	3	.....	.....	.....	.....	16	.....	.....	1
Application and handling of air brakes, starting and stopping of trains, adjusting slack.....	44	57	103	137	.....	.....	.....	.....	5	.....	.....	1
Employees getting off train.....	81	81	130	130	.....	.....	.....	.....	4	.....	.....	198
Employees boarding train.....	40	40	53	53	.....	.....	.....	.....	9	.....	.....	220
Slipping on ice.....	13	13	37	37	.....	.....	.....	.....	1	.....	.....	94
Doors closing and other minor accidents in baggage cars and coaches.....	174	175	279	280	.....	.....	.....	.....	1	.....	.....	51
Run down by engine or cars at stations or in yard.....	13	5	19	15	.....	.....	.....	.....	5	.....	.....	480
Passing too close around end of string of cars.....	1	1	.....	.....	.....	.....	.....	.....	32	.....	.....	23
Caught by engine or car while throwing switch.....	1	1	.....	.....	.....	.....	.....	.....	1	.....	.....	1
Falling off side or end ladders or cars.....	23	23	34	34	.....	.....	.....	.....	58	.....	.....	58
Handbrake—accidents while working handbrake.....	36	36	58	58	.....	.....	.....	.....	100	.....	.....	100
Handling freight or baggage.....	14	14	11	11	.....	.....	.....	.....	6	.....	.....	25
Loading and unloading O. C. S. materials.....	8	8	8	8	.....	.....	.....	.....	16	.....	.....	16
Work train equipment.....	8	9	2	2	.....	.....	.....	.....	10	.....	.....	11
Cars moved while being loaded or unloaded.....	4	4	6	6	.....	.....	.....	.....	10	.....	.....	10
Carmen working on or under cars on running track when moved.....	2	2	.....	.....	.....	.....	.....	.....	2	.....	.....	2
Chaining or unchaining cars.....	1	1	.....	.....	.....	.....	.....	.....	1	.....	.....	1
Coupling or uncoupling hose.....	8	8	13	13	.....	.....	.....	.....	23	.....	.....	23
Turning angle-cock.....	4	4	12	12	.....	.....	.....	.....	18	.....	.....	18
Coach window falling.....	2	2	1	1	.....	.....	.....	.....	5	.....	.....	5
Loads shifting in transit or switching.....	3	3	2	2	.....	.....	.....	.....	6	.....	.....	6
Falling or jumping off passenger train between stations.....	.....	.....	4	4	.....	.....	.....	.....	4	.....	.....	2
Cars running away not under control.....	9	1	32	4	.....	.....	.....	.....	13	.....	.....	36
Individual derailment of equipment in yard tracks.....	6	1	2	2	.....	.....	.....	.....	10	.....	.....	11
Caught between running boards.....	.....	.....	1	1	.....	.....	.....	.....	1	.....	.....	1
Fires occurring in passenger train equipment.....	.....	.....	1	1	.....	.....	.....	.....	1	.....	.....	1
Totals.....	1,259	1,490	1,586	1,785	114	140	23	169	2,985	312	.....	3,444

TRANSPORT COMMISSIONERS FOR CANADA

STATEMENT No. 4—PARTICULARS OF ALL HIGHWAY CROSSING ACCIDENTS WITH DESCRIPTION OF PROTECTION OR NON-PROTECTION IN EFFECT FOR THE YEAR ENDED DECEMBER 31st, 1955

	New found-land		Prince Edward Island		Nova Scotia		New Brunswick		Quebec		Ontario		Manitoba		Saskatchewan		Alberta		British Columbia		Totals	
	Acc.	I.	Acc.	I.	Acc.	I.	Acc.	I.	Acc.	I.	Acc.	I.	Acc.	I.	Acc.	I.	Acc.	I.	Acc.	I.	Acc.	I.
Gates, Manual.....									4	9	8	11					1	1			13	21
Gates, Automatic.....							1	1	4	2	8	1	1	1							7	9
Bell.....											2	1	2								2	2
Bell and Wigwag.....			1	1			2	2	2	1	3	24	13	19			1	1			29	26
Flashing lights and bell.....							2	1	18	12	67	24	9	19	2	4	3	3			52	99
Watchman.....											1	2	1	2	1	2					2	4
Unprotected.....	3	6	4	9	11	13	11	2	64	26	93	166	56	213	33	11	49	52	8	38	405	568
Totals.....	3	6	4	9	12	11	18	4	92	11	226	80	266	37	11	56	49	57	29	41	510	729
											1951		1952		1953		1954		1955			
Number of accidents which occurred at crossings protected by Gates, Manual.....											9		7		8		11		13			
Number of accidents which occurred at crossings protected by Gates, Automatic.....											1		2		2		2		7			
Number of accidents which occurred at crossings protected by Bell.....											7		3		3		5		2			
Number of accidents which occurred at crossings protected by Bell and Wigwag.....											53		41		38		45		29			
Number of accidents which occurred at crossings protected by Flashing Light Signals and Bells.....											26		39		35		37		52			
Number of accidents which occurred at crossings protected by Watchman.....											1		7		9		1		2			
Number of accidents which occurred at crossings Unprotected.....											393		264		392		353		405			
Totals.....											490		463		487		451		510			

STATEMENT No. 5—HIGHWAY CROSSING ACCIDENTS BY PROVINCES FOR 5 YEAR PERIOD 1951 TO 1955 INCLUSIVE

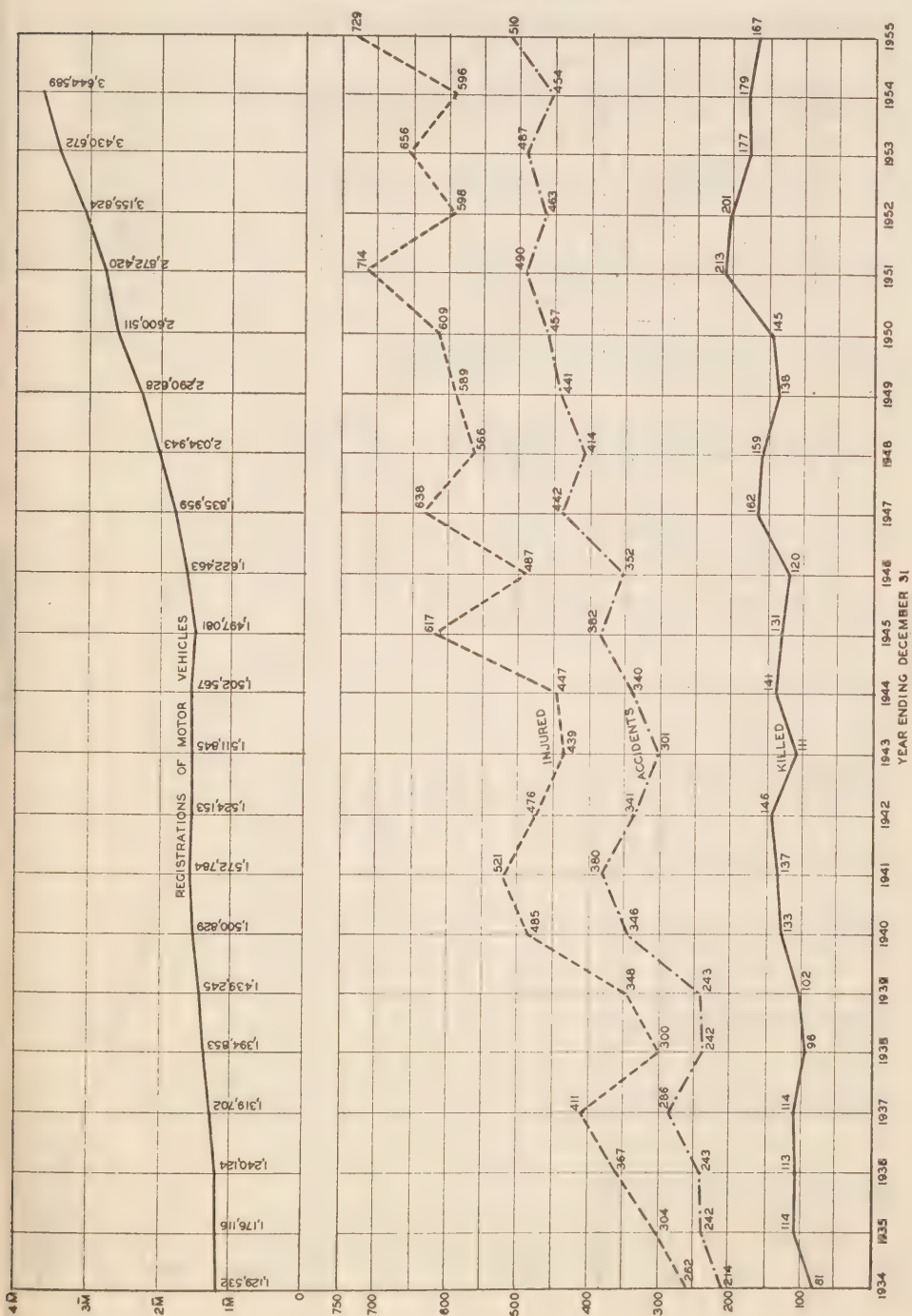
	NEW- FOUND- LAND	PRINCE EDWARD ISLAND	NOVA SCOTIA	NEW- BRUNS- WICK	QUEBEC	ONTARIO	MANITOBA	SASKAT- CHEWAN	ALBERTA	BRITISH COLUMBIA	TOTALS
1951.....	1	6	14	26	92	215	26	29	51	30	490
1952.....	3	2	15	17	89	192	30	37	49	29	463
1953.....	1	1	11	12	83	198	42	52	58	29	487
1954.....	2	.....	14	13	80	208	34	35	49	19	454
1955.....	3	4	12	18	92	226	37	43	46	29	510

TRANSPORT COMMISSIONERS FOR CANADA

STATEMENT No. 6—CONTRIBUTING FACTORS INVOLVED IN VARIOUS CLASSES
OF CROSSING ACCIDENTS FOR YEAR 1955

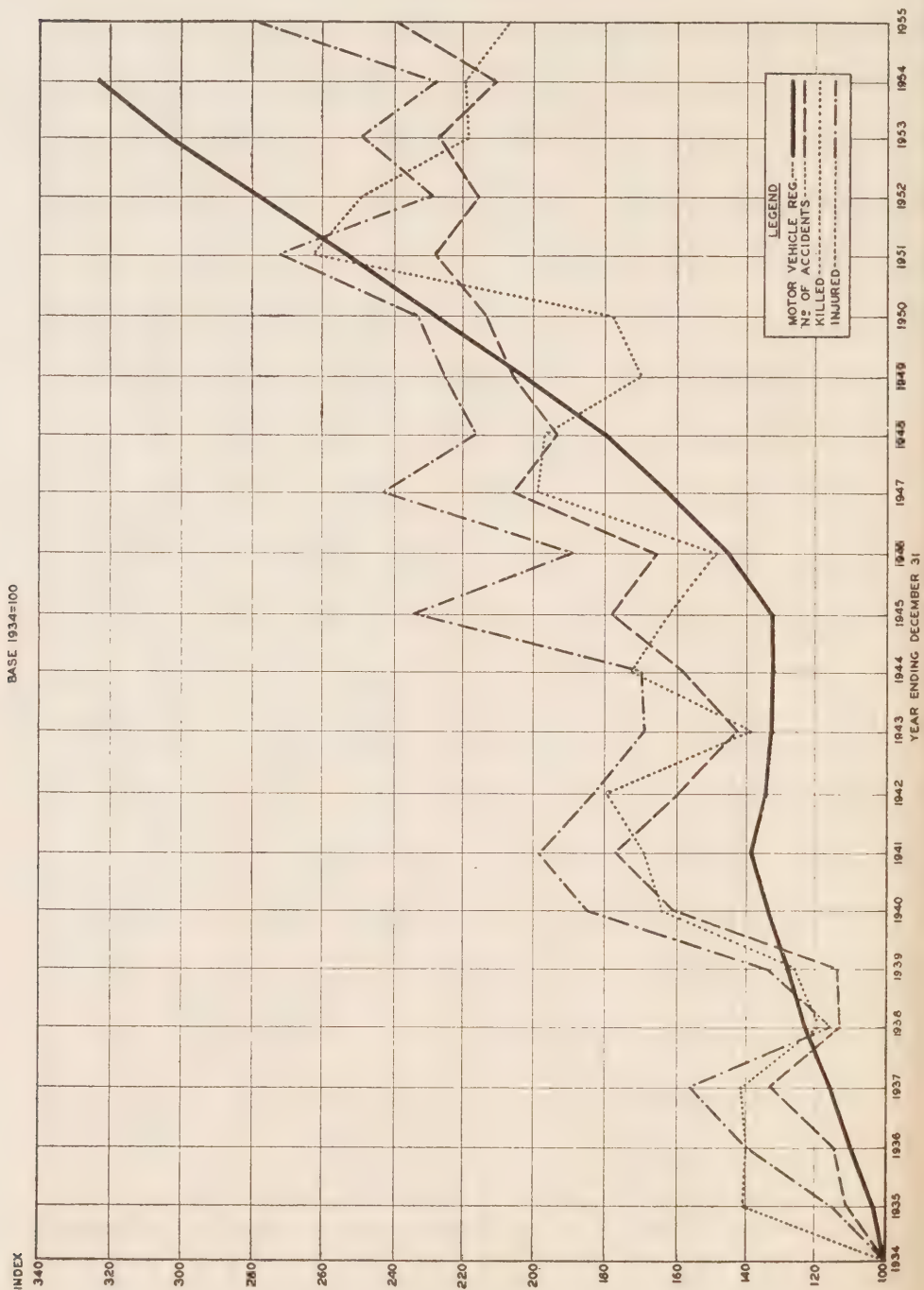
	Accidents	Killed	Injured
<i>Motor Vehicles Struck by Train—</i>			
Daylight hours.....	191	61	244
Night hours.....	125	62	206
Totals.....	316	123	450
<i>Horse-Drawn or Other Vehicles Struck by Train—</i>			
Daylight hours.....			
Night hours.....	1	1	
Totals.....	1	1	
<i>Pedestrians Struck by Train—</i>			
Daylight hours.....	16	7	9
Night hours.....	9	4	7
Totals.....	25	11	16
<i>Motor Vehicles Running into Side of Train—</i>			
Daylight hours.....	46	15	64
Night hours.....	109	16	175
Totals.....	155	31	239
<i>Accidents in which Track Cars Involved—</i>			
Daylight hours.....	13	1	24
Night hours.....			
Totals.....	13	1	24
<i>Total Number of Accidents—</i>			
Daylight hours.....	266	84	341
Night hours.....	244	83	388
Grand Total.....	510	167	729

STATEMENT No. 7—MOTOR VEHICLE REGISTRATIONS AND HIGHWAY CROSSING
ACCIDENTS 1934-1955—BOARD OF TRANSPORT COMMISSIONERS FOR
CANADA—OPERATING BRANCH

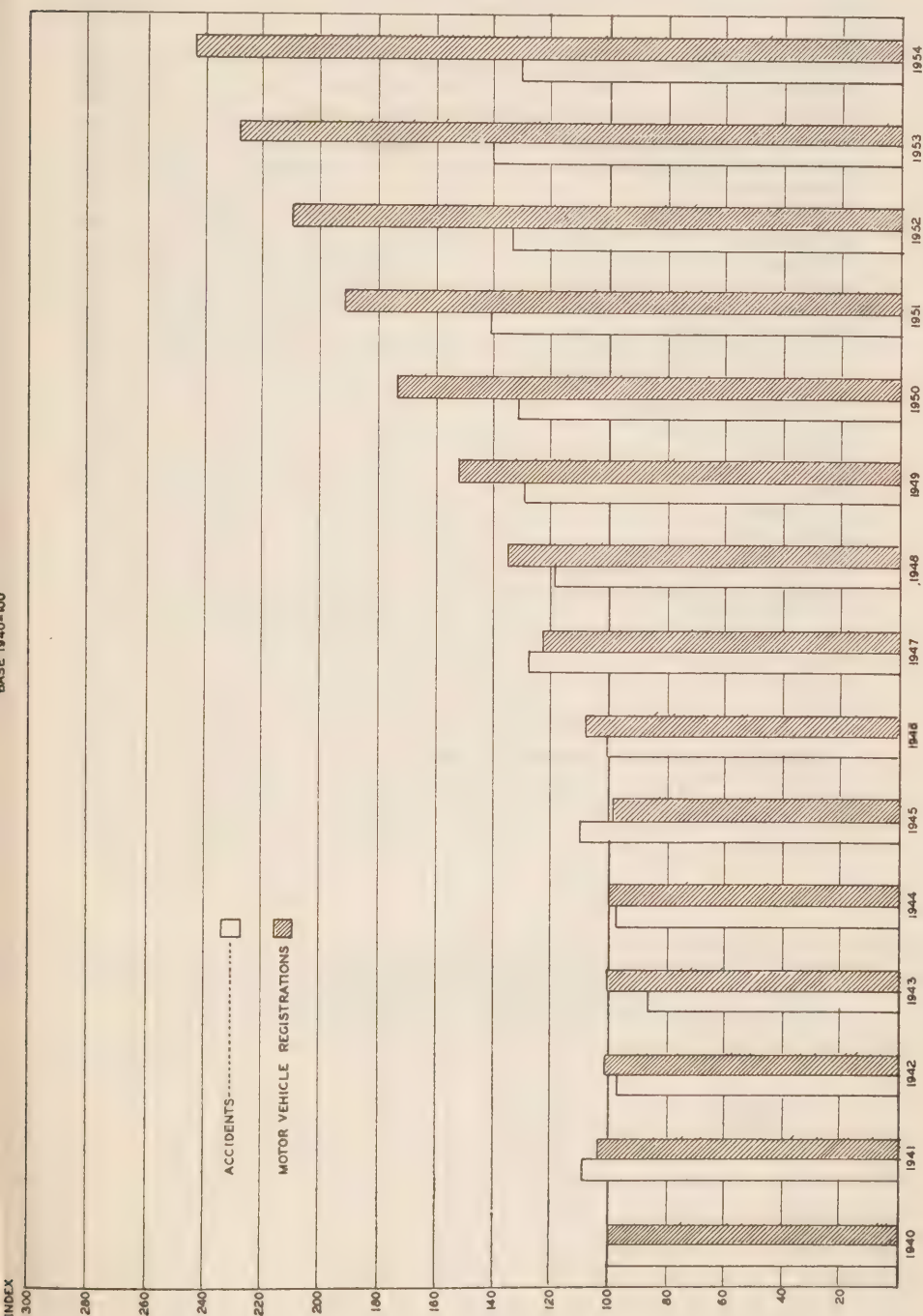


TRANSPORT COMMISSIONERS FOR CANADA

STATEMENT No. 8—INDEXES OF MOTOR VEHICLE REGISTRATIONS AND HIGHWAY CROSSING ACCIDENTS 1934-1955—BOARD OF TRANSPORT COMMISSIONERS FOR CANADA—OPERATING BRANCH



STATEMENT No. 9—INDEXES OF MOTOR VEHICLE REGISTRATIONS AND HIGHWAY
CROSSING ACCIDENTS 1940-1954—BOARD OF TRANSPORT COMMISSIONERS
FOR CANADA—OPERATING BRANCH



STATEMENT No. 10—DEFECTS ON FREIGHT CARS REPORTED BY THE BOARD'S INSPECTORS FOR THE YEAR ENDED DECEMBER 31st., 1955

Classification	Number of Defects
Handholds.....	391
Sill Steps.....	449
Ladders.....	196
Running boards.....	361
Safety bars, door locks, end gates and catches, latches, etc.....	40
Miscellaneous Safety appliances.....	27
Coupler improper height above rails.....	102
Coupler and pin.....	75
Knuckle and Knuckle Pin.....	7
Draft gear, yoke, springs, plates, etc.....	366
Carrier iron.....	92
Operating lever.....	375
Buffers, face plates and diaphragms, curtains, etc.....	31
Miscellaneous draft gear defects.....	41
Handbrake equipment.....	438
Foundation brake gear equipment.....	333
Piping, fittings, valves and reservoirs.....	282
Air brake equipment.....	244
Periodic testing, cleaning, etc.....	636
Improper piston travel.....	1,890
Center sill.....	62
Longitudinal sill.....	12
Side sill.....	9
Cross bearer.....	2
Body bolster.....	65
Miscellaneous underframe.....	17
Car over-due for reweighing (out of date for tare).....	354
Sheathing defects—wood or metal units.....	43
Floor and roofing.....	35
Doors, side, or end, hoppers, hatches and their openers, fasteners, levers, etc....	51
Miscellaneous car body.....	194
All wheel defects.....	118
Axles.....	5
Boxes over-due for repack or inspection.....	418
Journal box and solid bearing.....	63
All anti-friction bearing and associated part defects.....	1
Truck side frame.....	77
Center casting, side bearing, bolster, etc.....	439
Truck spring defects.....	190
Total Defects.....	8,531

NUMBER OF FREIGHT CARS INSPECTED, SHOWING CARS DEFECTIVE, NUMBER OF DEFECTS, ALSO NUMBER OF CARS INSPECTED FOR OVERDUE FOR WEIGHING FOR TARE AND IMPROPER PISTON TRAVEL FOR THE YEAR ENDED DECEMBER 31st., 1955

Railway	Total Cars Inspected	Total Cars Defective	Total Number of Defects	Cars Inspected	
				Over-due Tare	Improper piston Travel
Canadian National.....	53,342	3,553	4,976	7,990	22,510
Canadian Pacific.....	34,633	2,416	3,189	6,370	14,654
Miscellaneous.....	3,299	251	366	275	1,335
Totals.....	91,274	6,220	8,531	14,635	38,499

STATEMENT No. 11—DEFECTS ON PASSENGER CARS REPORTED BY THE BOARD'S INSPECTORS FOR THE YEAR ENDED DECEMBER 31st., 1955

Classification	Number of Defects
Handholds.....	66
Sill steps.....	11
Safety bars, door locks, end gates and catches, latches, etc.....	24
Miscellaneous safety appliance defects.....	8
Coupler improper height above rails.....	5
Coupler and coupler pin.....	3
Knuckle and knuckle pin.....	1
Carrier iron.....	5
Operating lever.....	17
Buffers, face plates and diaphragms, curtains, etc.....	171
Hand brake equipment.....	159
Foundation brake gear equipment.....	13
Piping, fittings, valves and reservoirs.....	11
Air brake equipment.....	16
Periodic testing, cleaning, etc.....	109
Improper piston travel.....	20
Train signal line apparatus.....	1
Sheathing defects.....	1
Floor and roofing.....	1
Doors, fasteners, levers, etc.....	7
All wheel defects.....	3
Axles.....	1
Boxes over-due for repack or inspection.....	29
Journal box and solid bearing defects.....	17
Anti-friction bearing and associated parts.....	2
Truck side frame.....	8
Center casting, side bearing, bolster, etc.....	5
Truck spring.....	19
Miscellaneous truck defects.....	2
Filters, fans, strainers, intakes, ducts, etc.....	2
Miscellaneous air-conditioning equipment.....	2
Stoves.....	1
Steam line.....	107
Generator and associated parts.....	8
Jumper and receptacles, wiring defects.....	2
Gas, holders and connections, piping fittings, gauges, emergency keys, mantles and globes, etc.....	65
Miscellaneous lighting systems.....	2
Cars unclean or unsanitary.....	5
Unsafe condition of seats, parcel racks, berths, etc.....	188
Drinking water and water raising systems.....	137
Emergency tools.....	121
Miscellaneous defects interior passenger train cars.....	2
Total Defects.....	1,377

NUMBER OF PASSENGER CARS INSPECTED, SHOWING CARS DEFECTIVE, NUMBER OF DEFECTS, ALSO NUMBER OF CARS INSPECTED FOR IMPROPER PISTON TRAVEL FOR THE YEAR ENDED DECEMBER 31st., 1955

Railways	Total Cars Inspected	Total Cars Defective	Total Number of Defects	Cars Inspected Improper piston Travel
Canadian National.....	5,501	581	923	3,407
Canadian Pacific.....	4,388	305	418	2,159
Miscellaneous.....	97	22	36	86
Totals.....	9,986	908	1,377	5,652

STATEMENT No. 12—DEFECTS ON STEAM LOCOMOTIVES REPORTED BY THE BOARD'S INSPECTORS FOR THE YEAR ENDED DECEMBER 31st., 1955

Classification	Number of Defects
Inspections or tests not made as required.....	8
Safety appliances.....	434
Brake equipment.....	456
Driving engine and tender truck wheels; centers, tires and axles.....	112
Lights.....	27
Draft gear and draw gear.....	163
Whistles (Horns), bells.....	100
Springs and spring rigging.....	448
Sanders.....	11
Cabs, cab windows, etc.....	89
Badge plates.....	4
Fire protective appliances.....	111
Gauges, steam and air.....	77
Electric meters (Indicating devices).....	2
Train communicating signal.....	2
Running defects—En route inspection.....	15
Flues and tubes.....	7
Boiler shell, steam dome, etc.....	128
Firebox sheets.....	20
Crown bolts, stay bolts.....	34
Water glass.....	60
Gauge cocks.....	25
Water column.....	3
Blow-off cocks.....	130
Plugs and studs.....	19
Washout plugs and pads.....	140
Injectors, feed-water pumps, and appurtenances.....	221
Safety valves.....	45
Steam pipes.....	30
Steam and oil valves.....	17
Throttle and dry pipe.....	83
Lubricators and appurtenances.....	12
Lateral motion.....	49
Ashpan dumping gear, grate shakers and fire doors.....	8
Reversing gear.....	26
Cross-heads, guides, pistons and rods.....	77
Cylinders, saddles, steam chests, cylinder cocks.....	41
Smoke boxes, stacks.....	10
Driving boxes, shoes and wedges, and cellars.....	73
Side rods and crank pins.....	19
Valve motion.....	45
Frames.....	35
Trucks.....	81
Trucks—tender.....	120
Frames—tender.....	38
Tenders.....	104
Stoker.....	1
Miscellaneous, steam locomotives.....	4
Total Defects.....	3,764

NUMBER OF STEAM LOCOMOTIVES INSPECTED, SHOWING ENGINES DEFECTIVE AND NUMBER OF DEFECTS FOR YEAR ENDED DECEMBER 31st., 1955

	Locomotives Inspected	Locomotives Defective	Total Defects
Canadian National.....	3,612	1,327	2,478
Canadian Pacific.....	1,945	662	1,160
Miscellaneous.....	272	61	126
Totals.....	5,829	2,050	3,764

STATEMENT No. 13—DEFECTS ON LOCOMOTIVES OTHER THAN STEAM REPORTED BY THE BOARD'S INSPECTORS FOR THE YEAR ENDED DECEMBER 31st., 1955

Classification	Number of Defects
Inspection or tests not made as required.....	1
Safety appliances.....	70
Brake equipment.....	88
Driving engine and tender truck wheels; centers, tires and axles.....	18
Lights.....	53
Draft gear and draw gear.....	16
Whistles (Horns), bells.....	3
Springs and spring rigging.....	16
Sanders.....	17
Cabs, cab windows, etc.....	20
Gauges, steam and air.....	4
Electric meters (Indicating devices).....	2
Train communicating signal.....	1
Plugs and studs.....	1
Driving boxes, shoes and wedges, and cellars.....	1
Frames.....	1
Trucks.....	9
Internal combustion engines.....	115
Main generator.....	1
Traction motor.....	4
Current collectors.....	2
Circuits, Terminals, cables, etc.....	11
Circuit breakers, switches, contactors.....	4
Control equipment.....	12
Fire extinguishers, fire fighting equipment.....	5
Fuel supply.....	54
Accident prevention, cleanliness.....	171
Miscellaneous—Diesel Electric locomotives.....	10
Miscellaneous—Electric locomotives.....	1
Steam generators.....	6
Feedwater system and appurtenances.....	5
Water tanks.....	5
Safety valves.....	1
Steam lines and connections.....	2
Electric circuits.....	6
Essential controls.....	8
Steam generator fuel system.....	3
Steam generator auxiliary equipment.....	1
Air supply equipment.....	3
Miscellaneous steam generators.....	1
Miscellaneous steam generators.....	1
Total Defects.....	752

NUMBER OF LOCOMOTIVES OTHER THAN STEAM INSPECTED, SHOWING ENGINES DEFECTIVE AND NUMBER OF DEFECTS FOR YEAR ENDED DECEMBER 31st., 1955

	Locomotives Inspected	Locomotives Defective	Total Defects
Canadian National.....	1,155	284	377
Canadian Pacific.....	767	213	281
Miscellaneous.....	362	67	94
Totals.....	2,284	564	752

STATEMENT No. 14—STATEMENT OF BOILER EXPLOSIONS AND CROWN SHEETS DAMAGED FOR THE YEAR 1955

Crown Sheets Damaged

Railway	Date	Engine No.	Place	Remarks
Canadian National.....	February 21.....	C.N. 2128.....	Luscar, Alberta.....	Crown sheet damaged due to low water.
Canadian National.....	March 19.....	C.N. 2720.....	Coronado Subdivision, Mileage 107-4, Alberta.....	Crown sheet damaged due to low water.
Canadian National.....	June 6.....	C.N. 88.....	Beeton, Ontario.....	Crown sheet damaged due to low water.
Canadian National.....	December 25.....	C.N. 8390.....	Transcona, Manitoba.....	Crown sheet damaged due to low water.

SUMMARIES

Boiler Explosions

Nil

Crown Sheets Damaged

Canadian National.....	4
Total.....	4

STATEMENT No. 15—SUMMARY OF REPORTS OF FIRES IN FOREST SECTIONS ORIGINATING WITHIN 300 FEET OF TRACK ALONG RAILWAY LINES UNDER THE JURISDICTION OF THE BOARD, SEASON OF 1955

	Canadian National (Atlantic Region) (a)	Canadian National (Central Region)	Canadian National (Western Region)	Canadian Pacific (Eastern Region)	Canadian Pacific (Prairie Region)	Canadian Pacific (Pacific Region)	Miscel- laneous (b)	Totals
<i>Fires of Railway Origin— Number by Causes</i>								
Locomotive, Class A fires.....	20	28	6	8	5	9	.....	76
Locomotive, Class B fires.....	5	44	12	26	11	8	11	117
Locomotive, Class C fires.....	2	9	3	14	.....	1	.....	28
Employees, Class A fires.....	2	1	3	3	2	.....	2	12
Employees, Class B fires.....	1	12	3	9	1	1	4	35
Employees, Class C fires.....	.....	1	2	1	2	.....	.....	6
Fuses, Class A fires.....	.....	3	2	1	.....	3	.....	9
Fuses, Class B fires.....	.....	4	4	.....	.....	.....	1	9
Fuses, Class C fires.....	.....	.....	.....	1	.....	.....	.....	1
Burning Smoking materials from Trains, Class A.....	.....	5	4	3	1	2	4	19
Burning Smoking materials from Trains, Class B.....	.....	3	5	1	.....	.....	.....	9
Burning Smoking materials from Trains, Class C.....	.....	.....	.....	.....	.....	.....	.....	1
Total, Class A.....	22	37	15	15	7	14	1	116
Total, Class B.....	6	63	27	36	13	9	16	170
Total, Class C.....	2	10	5	16	2	1	1	37
Total.....	30	110	47	67	22	24	23	323
<i>Areas burned (acres)</i>								
Young forest growth.....	2.00	131.58	178.00	75.75	5.50	0.32	82.90	476.05
Merchantable timber.....	.....	9.00	86.25	30.75	1.00	.....	.....	127.00
Slashing or old burn.....	25.25	67.75	50.60	4.60	28.97	0.50	57.50	235.17
Other classes of land.....	32.82	569.12	216.65	1,521.55	31.10	40.00	43.10	2,454.34
Total.....	60.07	777.45	531.50	1,832.65	66.57	40.82	183.50	3,292.56
<i>Value of Property Destroyed—</i>								
Young forest growth.....	\$ 30.00	\$ 4,450.00	\$ 254.00	\$ 35.00	\$\$	\$ 4.00	\$ 29.83	\$ 4,802.83
Standing timber.....	.....	105.55	73.75	171.20	6.20	.....	.....	356.70
Forest products.....	.....	.....	.....	80.00	.....	.....	.....	80.00
Other Property.....	250.00	200.00	90.95	9,346.25	.....	2.10	470.25	10,359.55
Total.....	280.00	4,758.55	418.70	9,632.45	6.20	6.10	500.08	15,599.08

STATEMENT No. 15—SUMMARY OF REPORTS OF FIRES IN FOREST SECTIONS ORIGINATING WITHIN 300 FEET OF TRACK ALONG RAILWAY LINES UNDER THE JURISDICTION OF THE BOARD, SEASON OF 1955—*Concluded*

	Canadian National (Atlantic Region) (a)	Canadian National (Central Region)	Canadian National (Western Region)	Canadian Pacific (Eastern Region)	Canadian Pacific (Prairie Region)	Canadian Pacific (Pacific Region)	Miscellaneous (b)	Totals
<i>Known Causes other than Railway—</i>								
Campers and Travellers, Class A.....	1	2	3	2		2	2	8
Campers and Travellers, Class B.....		9		5		6		24
Campers and Travellers, Class C.....								
Settlers, Class A.....	1	1		1				5
Settlers, Class B.....	1		2					1
Settlers, Class C.....								1
Other known causes, Class A.....		2	1	3			1	8
Other known causes, Class B.....								
Other known causes, Class C.....		2	1	2				9
Total, Class A.....		12	6	9		2	2	37
Total, Class B.....	3					6	1	1
Total, Class C.....	1							
Total.....	4	14	7	11		8	3	47
<i>Areas Burned (acres)—</i>								
Young forest growth.....			0.25	1.50		3.50		5.25
Merchantable timber.....		8.00						8.00
Slashing or old burn.....		18.35	2.50			4.00		24.85
Other classes of land.....	44.25		4.10	25.63		9.75	50	102.58
Total.....	44.25	26.35	6.85	27.13		17.25	50	122.33
<i>Value of Property Destroyed—</i>								
Young forest growth.....	\$	\$	\$	\$	\$	\$	\$	\$
Standing timber.....		176.20				1.15		1.15
Forest products.....								176.20
Other property.....		50.60	0.75	10.00		1.65		63.00
Total.....		226.80	0.75	10.00		2.80		240.35
<i>Fires of Unknown Origin—</i>								
Class A.....	5		1	2		1	4	13
Class B.....	1	4	5	3			2	16
Class C.....	1	1				1	1	3
Total.....	7	5	6	5	1	1	7	32

<i>Areas Burned (acres)</i> —										
Young forest growth.....	300.00	14.00	1.00							315.00
Merchantable timber.....	5.00									5.00
Slashing or old burn.....	335.30	33.50	4.75		164.75				73.00	76.25
Other classes of land.....										613.40
Total.....	640.55	47.50	8.75		164.75				73.00	1,009.65
<i>Value of Property Destroyed</i> —										
Young forest growth.....	\$	\$	\$		\$			\$	\$	\$
Standing timber.....		133.00	3.00							136.00
Forest products.....		300.00								300.00
Other property.....		135.00	0.10						150.00	335.10
Total.....		618.00	3.10						150.00	771.10

(a) Includes Province of Newfoundland.

(b) Includes Quebec North Shore and Labrador Railway; Northern Alberta Railways; White Pass and Yukon Route; Esquimalt and Nanaimo Railway; Dominion Atlantic Railway; Cumberland Coal and Railway Company; Algoma Central and Hudson Bay Railway.

Note:—No fires were reported during 1955 as originating within 300 feet of track in forest sections along the following lines:—Nipissing Central Railway; Quebec Central Railway, and Sydney and Louisburg Railway.

Class A fires are those which cover an area less than one-fourth acre, regardless of amount of damage.

Class B fires are those which cover an area of one-fourth acre to ten acres.

Class C fires are those which cover an area over ten acres.

APPENDIX "F"

FEBRUARY 7th, 1956

Mr. C. W. RUMP,
SECRETARY,

BOARD OF TRANSPORT COMMISSIONERS FOR CANADA.

Submitted, herewith, is the annual report of the Economics Branch for the year ended December 31, 1955.

M. E. BURWASH,

Transportation Economist.

The Bureau of Transportation Economics, which formerly served the Board of Transport Commissioners and the Air Transport Board, was reorganized effective April 1, 1955. A small staff was retained to form the Economics Branch of the Board of Transport Commissioners, and the balance of the staff was transferred to the Department of Transport.

The 1954 waybill analysis of all-rail carload freight moving between Canadian stations was completed, and a summary of results published in July, 1955. The railways participating in the waybill study forwarded to the Board photostatic copies of carload waybills terminating at their stations in Canada, bearing serial number "1" and serial numbers ending in "01". This was designed to produce a random 1% sample throughout the year in lieu of a four-day sample which was used in previous analyses. This basis of sampling every hundredth waybill was continued in 1955 and the results will be published in 1956.

The 1954 sample consisted of 22,052 waybills which were processed to record origin, destination, mileage, class of commodity, type of rate, weight and freight charges; the data were then consolidated and tabulated to indicate the pattern of all-rail carload freight movement in Canada. The waybill information was used in freight rate studies, and has been of particular value to the Board, the railways and other parties in connection with the investigation and equalization of freight rates.

The change in distribution of traffic as between types of rates is indicated by a comparison of the waybill analyses of 1949 and 1954:

	Percent of Sample Ton Miles		Percent of Sample Revenue	
	1949	1954	1949	1954
	%	%	%	%
Class rate traffic.....	8.1	4.3	19.6	10.8
Commodity—Special.....	78.3	73.5	65.8	59.7
—Competitive.....	9.1	12.5	8.9	15.8
—Agreed Charge.....	0.8	3.2	2.4	6.0
Other traffic.....	3.7	6.5	3.3	7.7
Total.....	100.0	100.0	100.0	100.0

The statistical schedules on which railways report annually to the Board of Transport Commissioners and to the Dominion Bureau of Statistics were reviewed during 1955, and meetings were held with railway representatives. Revisions were made in these statistical schedules in order to improve the representativeness and uniformity of data to be reported for 1956. The changes involved roads and mileage operated, description of equipment, consumption of fuel, ties and rails laid in track, freight traffic originated and terminated, and employees and their compensation. Rules were prepared to govern the classification of train miles, locomotive miles, and car miles, as reported in statistics of operation.

Studies were made in connection with commutation services, the grade-crossing fund, abandonment of railway services, agreed charges, equalization of freight rates, and the pattern of freight movement by industries. The annual reports filed with the Board by railways, telephone companies, water carriers and pipe lines are not available for review until about two months after the close of the calendar year; the monthly reports filed by the railways have been used to prepare an estimate of 1955 traffic and earnings.

The revenue freight ton miles of Canadian railways in 1955 increased 14.2% which more than offset the drop which had occurred in 1954. Revenue passenger miles in 1955 remained at about the same level as in 1954. Operating revenues increased by about \$102 million or 9.3%, while operating expenses rose \$21 million or 2.1%. The net operating revenue for 1955 has been estimated at \$157.6 million as compared with \$76.7 million in 1954. A summary of railway statistics from 1941 to 1955 is given below: operations of the Quebec North Shore and Labrador Railway are included for the last five months of 1954 and for the full year 1955:

Year	Operating Revenues	Operating Expenses	Net Operating Revenue	Operating Ratio	Revenue Freight Ton Miles	Revenue Passenger Miles
	\$	\$	\$		(000)	(000)
1941.....	538,291,947	403,733,542	134,558,405	75.0	49,982,478	3,205,542
1942.....	663,610,570	485,783,584	177,826,986	73.2	56,153,953	4,989,296
1943.....	778,914,565	560,597,204	218,317,361	72.0	63,915,074	6,525,064
1944.....	796,636,786	634,774,021	161,862,765	79.7	65,928,078	6,873,188
1945.....	774,971,360	631,497,562	143,473,798	81.5	63,349,095	6,380,155
1946.....	718,501,764	623,529,472	94,972,292	86.8	55,310,308	4,648,558
1947.....	785,177,920	690,281,047	94,356,873	88.0	60,143,035	3,732,777
1948.....	875,832,290	808,126,455	67,705,835	92.3	59,080,323	3,477,273
1949.....	894,397,264	831,456,446	62,940,818	93.0	56,338,231	3,193,174
1950.....	958,985,751	833,726,562	125,259,189	86.9	55,537,900	2,816,154
1951.....	1,088,583,789	977,577,062	111,006,727	89.8	64,300,418	3,110,241
1952.....	1,172,158,665	1,057,186,304	114,972,361	90.2	68,430,417	3,151,261
1953.....	1,205,935,414	1,100,393,836	105,541,578	91.3	65,267,016	2,985,950
1954.....	1,099,662,424	1,022,978,539	76,683,885	93.0	58,364,626	2,863,805
1955 (Est.).....	1,201,569,000	1,044,001,000	157,568,000	86.9	66,667,975	2,841,217

APPENDIX "G"

FEBRUARY 2nd, 1956.

Mr. C. W. RUMP,
Secretary,
Board of Transport Commissioners for Canada.

Your File No. 871.53—Board's Annual Report for the Year 1955.

Submitted herewith is the official report, as of December 31st, 1955, of the newly-established Accounts and Cost Finding Branch.

A. BRANGAN,
Director.

"Preliminary steps in the establishment of the Accounts and Cost Finding Branch were taken during the latter months of 1955. The initially contemplated, and presently authorized, personnel of the Branch will be officially constituted by a Director, two Examiners, an Accountant, and a Secretary (a staff of five). The primary function of the Branch will have to do with the administration of the Uniform Classification of Accounts for Common Carriers by Railway in Canada coming under the jurisdiction of the Board, and to which Uniform Classification reference is made later in this Report.

Parliamentary consideration of accounting uniformity had their genesis in Section 13 of the Canadian National-Canadian Pacific Act 1933, which directed the Canadian National auditors in their annual reports to Parliament to 'call attention to any matters which in their opinion require consideration or remedial action'. In their 1934 Report to Parliament, the Canadian National auditors, inter alia, made the following comment:

'Believing that the uniform presentation of results is of far-reaching importance, it would appear to us to be a subject to which we should draw the attention of Parliament under the specific instructions given to the auditors in the legislation under which this audit is carried out. For this reason we take up the matter briefly in this report.'

Over a period of several years thereafter the aforementioned auditor's reports dealt at length with the matter.

In 1939 a Uniform Accounting Committee was appointed by the Right Honourable C. D. Howe, the then Minister of Transport, but because of more pressing problems arising from the outbreak of the Second World War the matter was put over until after the close of hostilities.

Post-war general rate cases coming before the Board, however, again made evident the need of accounting uniformity, and in due time the 'Report of the Royal Commission on Transportation 1951' included, with respect thereto, the following recommendations:

'That the Railway Act be amended so that the Board of Transport Commissioners shall:

- (a) Be empowered and directed to prescribe as soon as practicable a uniform classification and system of accounts and reports for rail items for the Canadian National and Canadian Pacific railways. Such classification and system of accounts and reports to distinguish clearly between rail and non-rail items. Since each of these companies not

only owns certain railways but controls, leases and operates other railways, the question will arise whether some of the smaller roads in this category should be compelled to adopt such classification. This is a matter of detail which the Board will be in a position to decide. The point to be stressed is that the uniformity must be such that comparisons of operation between the two major systems may be readily made.

- (b) Be empowered to prescribe a simplified classification of such accounts and reports for railways (other than the Canadian National and Canadian Pacific railways) subject to the jurisdiction of the Board.
- (c) Be empowered and directed to prescribe as soon as practicable for all railways subject to its jurisdiction the classes of property for which depreciation may properly be charged in the rail accounts, and the rate or rates to be charged with respect to each class. Whatever system and whatever rates of depreciation are approved by the Board should be accepted for income tax purposes, because it might be said to be unfair to have depreciation charges approved by a regulatory body such as the Board and then disallowed in determining income tax liability.
- (d) Be empowered to carry out such inspection and examination of the accounts of the railways as the Board deems necessary.
- (e) Be empowered and directed to institute and maintain a statistical procedure so designed as to provide the requisite data necessary to the performance of its duties.'

Consequent upon the 1951 Royal Commission Report, Parliament, in Sections 386 and 387, R.S. 1952, made the following provisions:

'386 The Board shall institute and maintain a statistical procedure designed to provide the data necessary for the performance of its duties. 1951 (2nd Sess.), c. 22, s. 15.

387. (1) The Board shall prescribe for the Canadian National Railway Company and the Canadian Pacific Railway Company a uniform classification and system of accounts and returns of their assets, liabilities, revenues and working expenditure that relate to railway operations.

(2) The Board may prescribe for any other railway company within the legislative authority of the Parliament of Canada a uniform classification and system as described in subsection (1), or a condensed form thereof.

(3) The Board shall prescribe the items that shall be classed as items relating to railway operations in the accounts and returns.

(4) The Board shall prescribe the classes of property for which depreciation charges may properly be included under operating expenses in the accounts, and the rate or rates of depreciation that shall be charged with respect to each of the classes of property.

(5) The Board or person appointed or directed by the Board under this Act to make inquiry or report may inspect and take copies of the accounts and other documents of any railway company within the legislative authority of the Parliament of Canada.

(6) Every railway company for which the uniform or condensed classification and system of accounts and returns is prescribed shall keep its accounts in accordance with the prescribed classification and system. 1951 (2nd Sess.), c. 22, s. 15.'

In compliance with the 1952 Directives of Parliament and after some three years of arduous collaborative effort on the part of its accounting advisers, and with the full co-operation of the accounting officers of the two major railways of Canada, the Board has concluded the main portion of its studies and considerations, and under date November 2nd, 1955, authorized and directed the issuance

of the Uniform Classification of Accounts for the two major (Class I) Common Carriers by Railways in Canada, effective January 1st, 1956. Copies of the Uniform Classification are available at the Queen's Printer.

Supplementary directives are in process of issuance by the Board, including those pertaining to:

- (a) The consist and constructive bases of statistics pertaining to rail operations in Canada.
- (b) The formula governing freight and passenger costing and general accounting allocations, the 'out-of-pocket' and 'compensatory' costing concepts, etc. in Canadian rail operations.
- (c) The format of periodic reportings to the Board including those heretofore pertaining to corporate matters in general; to operating, income, capital expenditure, balance sheet, statistical and other statements pertaining to rail operations in Canada.
- (d) The reconciliations between Canadian rail, Canadian non-rail, non-Canadian accounts, and the published corporate accounts to shareholders.
- (e) The condensed classification applicable to other than the two major railways of Canada—i.e.: Classes II to IV—(to be effective not later than January 1st, 1957).
- (f) The procedures to be followed by carriers and all other properly constituted interests in respect of any suggested amendments to the accounting, costing, statistical and ancillary regulations of the Board from time to time in the future.

Plans for the completion of the Branch's organizational structure, co-ordinated working relationships with other administrative and regulatory bodies in Canada and the United States, and governing procedures for the future implementation of the Board's regulations, are well under way."

APPENDIX "H"

GENERAL ORDER NO. 805

In the matter of the Rules and instructions for the inspection and testing of locomotive boilers and their appurtenances:

File No. 16513

TUESDAY, the 1st day of February, A.D. 1955.

HUGH WARDROPE, *Asst. Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

It is ordered that the rules and instructions for inspection and testing of locomotive boilers and their appurtenances prescribed by General Order No. 473, dated May 22, 1929, as amended by General Order No. 531, dated December 18, 1934, General Order No. 725, dated June 1, 1949, and General Order No. 760, dated July 31, 1951, be, and they are hereby amended by

- (a) striking out Rule 11 as prescribed by General Order No. 473 and substituting therefor the following:

"Inspection of Exterior of Boiler

- (11) *Lagging to be Removed*—The jacket and lagging shall be removed after sixty calendar months' service provided such service is performed within six consecutive years and a thorough inspection made of the entire exterior of the boiler while under hydrostatic pressure. The jacket and lagging shall also be removed whenever, on account of indications of leaks, the Board's Inspector or the railway company's Inspector considers it desirable or necessary.

The period for inspection of the exterior of boilers built or rebuilt subsequent to January 1, 1923, may be extended in certain cases, upon formal application to the Board's Director of Operation, if investigation shows that such extension of time is warranted."

- (b) by striking out rule 18(a) as prescribed by General Order No. 725 and substituting therefor the following:

"Method of testing flexible staybolts with caps

- (18) (a) All staybolts equipped with caps over the outer ends shall have the caps removed upon completion of 60 calendar months actual service, provided such service is performed within 6 consecutive years, at which time all bolts and sleeves must be examined and effectively tested for breakage or fracture. Portions of calendar months out of service will not be counted. Time out of service must be properly accounted for by out of service reports, and notations of months claimed out of service made on the back of each subsequent inspection report and cabcard. Each time a hydrostatic test is applied, the hammer test required by Rules 16 and 17 must be made while the boiler is under hydrostatic pressure not less than the allowed working pressure.

Locomotives of United States railway companies running in International service between United States and Canada are permitted to operate in Canada provided the requirements of the Inter-state Commerce Commission regarding staybolts are fully complied with.

Where boilers have been built or re-built subsequent to January 1, 1923, the period for removal of caps and examination of bolts and sleeves may be extended in certain cases upon formal application to the Board's Director of Operation, if investigation shows that such extension of time is warranted."

HUGH WARDROPE,
Assistant Chief Commissioner,
The Board of Transport Commissioners for Canada.

GENERAL ORDER No. 806

In the matter of regulations respecting the installation and changes to automatic block signal systems, traffic control systems, and station protection signals:

File No. 45417

FRIDAY, the 18th day of February, A.D. 1955.

HUGH WARDROPE, *Asst. Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

It is ordered

1. That the following regulations respecting the installation and changes to automatic block signal systems, traffic control systems, and station protection signals be, and they are hereby prescribed for the observance of every railway company within the legislative authority of the Parliament of Canada.

2. That the said regulations apply to new installations only and do not apply to existing installations made prior to the date of this Order.

3. That General Order No. 736, dated the 4th day of January, 1950, be, and it is hereby rescinded.

REGULATIONS IN RESPECT TO INSTALLATION AND CHANGES TO AUTOMATIC BLOCK
SIGNAL SYSTEMS, TRAFFIC CONTROL SYSTEMS, AND
STATION PROTECTION SIGNALS

1. Without the approval of the Board no company shall install or make any major change in automatic block signal systems, traffic control systems, or station protection signals.

2. With the application for such approval the company shall send to the Secretary of the Board three sets of a combined plan and profile, showing tracks, gradients and alignments for the territory on which the signals are to be installed, and with the location for proposed signals shown thereon.

3. Definitions and symbols approved by the Signal Section of the Association of American Railroads shall apply for the purpose of these requirements.

4. The apparatus shall, so far as possible, be so installed and circuits so arranged that failure of any part of the system affecting the safety of train operation will cause all signals affected to give the most restrictive indications which conditions require.

5. Signals shall be located preferably to the right of and next to the track they govern.

6. Signal aspects shall be shown by the position of semaphore blades, position of lights, colour of lights, flashing of lights or any combination thereof. They may be qualified by marker plate, number plate, letter plate, marker light, shape and colour of semaphore blade, or any combination thereof subject to the following conditions:

- (a) Night aspects of roadway signals, except qualifying appurtenances, shall be shown by lights, day aspects by lights or semaphore arms. A single white light shall not be used.
- (b) Reflector lenses or buttons or other devices which depend for visibility upon reflected light from an external source shall not be used in night aspects, except qualifying appurtenances.

- (c) The aspects of cab signals shall be shown by lights or by illuminated letters.
- (d) Each aspect displayed by a signal shall be identified by a name and shall indicate action to be taken. Only one name and indication shall apply to those aspects indicating the same action to be taken. The same aspect shall not be used with any other name and indication.

7. The fundamental indications of signal aspects shall conform to the following:

- (a) A red light or a series of horizontal lights or a semaphore blade in the horizontal position shall be used to indicate stop.
- (b) A yellow light or a series of lights or a semaphore blade in the upper quadrant at an angle of approximately 45° to the horizontal, shall be used to indicate that speed is to be reduced and a stop may be required.
- (c) A green light, a series of vertical lights or a semaphore blade in the vertical position shall be used to indicate proceed at authorized speed.

8. Each signal shall be located with respect to the next signal or signals in advance which govern train movements in the same direction so that the indication of a signal displaying a restrictive aspect can be complied with by means of a brake application, other than an emergency application, initiated at such signal, either by stopping at the signal where a stop is required, or by a reduction in speed to the rate prescribed by the next signal in advance where reduced speed is required.

9. If an arm of a semaphore signal assumes a false restrictive position or if a lamp in a light signal fails, the signal shall not display a less restrictive aspect than intended.

10. On the track signalled for movements in both directions a train shall cause one or more opposing signals immediately ahead of it to display an aspect requiring a stop. On such track signals shall be so arranged and controlled that if opposing trains can simultaneously pass signals displaying proceed aspects, and the next signal in advance of each such signal then displays an aspect requiring a stop, the distance between the opposing signals requiring a stop shall be not less than the aggregate of the stopping distances for train movements in each direction. Where such opposing signals are spaced stopping distances apart for train movements in one direction only, signals arranged to display restrictive aspects shall be provided in approach to at least one of the signals. Where such opposing signals are spaced less than stopping distance apart for train movements in one direction, signals arranged to display restrictive aspects shall be provided in approach to both such signals.

11. Signals shall be automatically controlled by continuous track circuits extending through the entire block, excepting as otherwise permitted.

12. Signal control circuits shall be so installed that each signal governing train movements into a block will display its most restrictive aspect when any of the following conditions obtain within the block:

- (a) When it is occupied by a train, locomotive or car;
- (b) When points of a switch are not closed in proper position;
- (c) When an independently operated fouling point derail equipped with switch circuit controller is not in derailing position;
- (d) When a track relay is in de-energized position;
or
- (e) When signal control circuit is de-energized.

13. Track relay shall be in de-energized position wherever any of the following conditions exist, and the track circuit of an automatic train stop, train-control or cab-signal system shall be de-energized in the rear of the point where any of the following conditions exist:

- (a) When a rail is broken or a rail or switch frog is removed, except when a rail is broken or renewed in the shunt fouling circuit of a turnout or crossover, provided, however, that shunt fouling circuit may not be used in a turnout through which permissible train speed is greater than forty-five miles per hour. It shall not be a violation of this requirement if a track circuit is energized when a break occurs within the limits of the joint bars or rail-joint bond or as a result of leakage current or foreign current in the rear of a joint where a break occurs or a rail is removed; protecting signals shall be arranged to display their most restrictive indication and immediate steps taken to correct such condition when found;
- (b) When a train, locomotive or car occupies any part of a track circuit, including fouling section of turnout, except turnouts of a hand-operated main track crossover. It shall not be a violation of this requirement where the presence of sand, rust, dirt, grease or other foreign matter on the rail prevents effective shunting;
- (c) Where switch shunting circuit is used;
 - (1) Switch point is not closed in normal position;
 - (2) Switch is not locked where facing point lock with circuit controllers is used; or
 - (3) An independently operated fouling-point derail equipped with switch circuit controller is not in derailing position.

14. Signal control and electric locking circuits shall not be selected through the contacts of instruments designed primarily for indicating or annunciating purposes in which an indicating element attached to the armature is arranged so that it can in itself cause improper operation of armature.

15. The battery or power supply for each signal control relay circuit, where an open-wire circuit or a common return circuit is used, shall be at the end of the circuit farthest from the relay.

16. A signal governing movements over hand-operated switch shall display its most restrictive aspect when the normally closed point of a facing point switch is open one-quarter inch or more or when the normally closed point of a trailing point switch is open three-eighths inch or more, except that where a separate aspect is displayed for movements over the facing point switch in the normal and in the reverse position the signal shall display its most restrictive aspect when the switch points are open one-fourth inch or more from the normal or the reverse position.

17. The control circuits of signals governing movements over a main track facing point spring switch shall be selected through the contacts of a switch circuit controller or through the contacts of relay repeating the position of such circuit controller which, when normally closed switch point is open one-fourth inch or more, will cause such signals to display their most restrictive aspects except that where a separate aspect is displayed for such movements over the switch in the reverse position the signal shall display its most restrictive aspect when the switch points are open one-fourth inch or more from the normal or the reverse position.

18. Indication of signal governing movement from siding to main track over a spring switch or governing movements against current of traffic from reverse main of main tracks to single track over a spring switch shall be Stop when, on signalled track, a train is approaching within 1,500 feet in rear of

approach signal located stopping distance from the main track signal governing trailing movements over the switch, except that indication may be caused to be less restrictive if approach or time locking is used.

19. Electric locks on new installations and new electric locks applied to existing installations shall be of the forced drop type, or the equivalent.

20. Where non-coded or non-reversible track circuits are in use and where energy to one track circuit is supplied through the front contacts of an adjoining track relay, the energy circuit to such track circuit shall be open and the track circuit shunted when such relay is in de-energized position.

21. Fouling section of turnout shall extend to clearance point.

22. The length of any track circuit, except trap-circuit or special circuit not used for control of signal facilities, shall be greater than the maximum inner wheel base of any locomotive or car.

23. Where a dead section exceeds thirty-five feet special circuit shall be installed. Where shortest outer wheel base of a locomotive operating over such dead section is less than thirty-five feet the maximum length of the dead section shall not exceed the length of the outer wheel base of such locomotive unless special circuit is used.

24. Signal wires carried on pole lines shall be securely tied in on insulators.

25. Insulated wires shall be protected from mechanical injury. The insulation shall not be punctured for test purposes. Splice in underground wire shall have insulation resistance at least equal to the wire spliced.

26. Wires shall not interfere with operating parts of mechanisms.

27. Each wire shall be tagged, or otherwise marked, so it can be identified at each terminal board where practicable. Nomenclature shall correspond to that of the circuit plan. Tags or other marks of identification in instrument cases and apparatus housing shall be made of insulating material and shall not interfere with moving parts of apparatus.

28. Lightning arresters shall be properly connected. Where grounded the resistance to ground preferably should not exceed 25 ohms.

29. Track shunt wires and fouling wires, except shunt wires to switch circuit controller through which signal control circuits are controlled and track circuits are shunted, shall consist of at least two conductors and each conductor shall be of sufficient conductivity and maintained in such condition that the track relay will be in de-energized position when the circuit is shunted.

30. At hand-operated crossover between main tracks protection shall be provided by one of the following:

- (a) An arrangement of one or more track circuits and switch circuit controllers;
- (b) Facing point locks on both switches of the crossover, with both locks operated by a single lever; or
- (c) Electric locking of the switches of the crossover.

31. Signals governing movements over either switch shall display their most restrictive aspect when any of the following conditions exist:

- (a) Where protection is provided by one or more track circuits and switch circuit controllers, and either switch is open or the crossover is occupied by a train, locomotive or car in such a manner as to foul the main track. It shall not be a violation of this requirement where the presence of sand, rust, dirt, grease or other foreign matter on the rail prevents effective shunting;

- (b) Where facing point locks with single lever are provided and either switch is unlocked; or
- (c) Where the switches are electrically locked, before the electric locking releases.

32. The electric lock on hand-operated switch shall be controlled so that it cannot be unlocked until control circuits of signals protecting such switch have been opened. Approach or time locking shall be provided.

33. Signals controlled by devices used to provide protection against unusual contingencies such as landslides, dragging equipment, burned bridge or trestles, and washouts, shall be located so that stopping distance will be provided between the signal and the point where it is necessary to stop a train.

34. Measures shall be taken to prevent recurrence of an aspect displayed by a light signal, different from the aspect intended, caused by light from an external source being reflected by the optical system of the signal.

35. Outdoor signal and instrument cases shall be locked.

36. The normal functioning of any device shall not be interfered with in testing or otherwise without first taking measures to insure safety of train operation which depends on the normal operation of such device.

37. Switch circuit controllers, facing-point locks and switch-and-lock movements and their connections shall be securely fastened in place, and contacts provided with an opening of not less than one-sixteenth inch when open.

38. Circuit controller operated by switch-and-lock movement shall be provided so that normally open contacts will remain closed and normally closed contacts will remain open until the switch is locked.

39. Track circuit shall be provided so that track relay will be in de-energized position if, when track circuit is dry, a shunt of 0.06 ohms resistance is connected across the track rails of the circuit, including fouling sections of turnouts.

40. Insulated rail joints shall be installed so as to prevent sufficient track circuit current from flowing between the rails separated by the insulation to cause a failure of any track circuit involved.

ADDITIONAL REGULATIONS APPLICABLE TO TRAFFIC CONTROL SYSTEMS

41. The control circuit for signals governing movements at higher than restricted speed over switches, movable-point frogs and derails shall be selected through circuit controllers operated directly by the point of such switch, frog, or derail, or by switch-locking mechanism or through relay controlled by such circuit controller, for each switch, movable-point frog and derail in the route governed by such signals. Circuits shall be so arranged so that such signals can display an aspect to proceed only when each switch, movable-point frog and derail in the route is in proper position.

42. Indication locking shall be provided for power-operated interlocking signals, power-operated switches, movable-point frogs, and derails, and for all approach signals, except light signals, all aspects of which are controlled by track circuits, or by line circuits which do not include a common return circuit.

43. A power-operated approach signal shall be provided on the main track to govern the approach with the current of traffic to all interlocking signals, except when the authorized speed of trains approaching the interlocking signal is slow speed or less, in which case an inoperative approach signal displaying an aspect indicating "approach next signal prepared to stop" may be used. Exception may be made where the interlocking signal is the first signal encountered when leaving yard or station and authorized speed approaching such signal is not more than slow speed.

44. Signals governing movements at higher than restricted speed shall be controlled by continuous track circuits.

45. At controlled point, signals shall be controlled by control operator, and at manually-operated interlocking, manually in co-operation with control operator.

46. Signals at a controlled point shall be so interconnected that aspects to proceed cannot be displayed simultaneously for conflicting movements.

47. Signals at adjacent controlled points shall be so interconnected that aspects to proceed cannot be displayed simultaneously for conflicting movements.

48. On track signalled for movement in both directions occupancy of the track between opposing signals at adjacent controlled points shall prevent changing the direction of traffic from that which obtained at the time the track became occupied.

49. Occupancy of main track shall be automatically indicated at the control station.

50. Approach or time locking shall be provided for all controlled signals and for all electric locks on hand operated switches.

51. Route locking shall be provided where switches are power operated.

52. It shall be indicated on the control machine when power-operated switch has completed its movement and is locked.

53. Each hand-operated switch in main track where train movements are made at speeds exceeding 20 miles per hour shall be electrically locked in normal position. Electric locks may be unlocked either automatically or by the control operator, but only after control circuits of signals governing movements over the switch in each direction have been opened. Relief from this requirement may be granted upon adequate showing by the railway.

54. Plunger of facing point locks shall have at least eight inch stroke. When lever is in reverse position plunger shall pass through lock rod one-half inch or more.

55. Locking dog of switch-and-lock movement shall extend through lock rod one-half inch or more in either normal or reverse position.

56. Pole changer on electric switch operating mechanism shall be provided so that movement of switch mechanism follows movement of controlling lever.

57. Point detectors shall be provided so that when switch mechanism is locked in normal or reverse position contacts cannot be opened by manually applying force at the closed switch point. Point detector circuit controllers shall be provided so that the contacts will not assume the position corresponding to switch point closure if the switch point is prevented by an obstruction from closing to within one-fourth inch of its proper position.

HUGH WARDROPE,
*Assistant Chief Commissioner,
The Board of Transport Commissioners for Canada.*

GENERAL ORDER No. 807

In the matter of approval of Supplement No. 3 to the Board of Transport Commissioners for Canada Regulations for the Transportation of Explosives and Other Dangerous Articles in Rail Freight and Rail Express Service:

File No. 1717·B

TUESDAY, the 1st day of March, A.D. 1955.

HUGH WARDROPE, *Asst. Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Upon reading the submission filed—

It is ordered

1. That the said Supplement No. 3 to the Board of Transport Commissioners for Canada Regulations for the Transportation of Explosives and Other Dangerous Articles in Rail Freight and Rail Express Service, on file with the Board under file No. 1717·B, be, and it is hereby authorized for the observance of the railway companies subject to the jurisdiction of the Board which accept explosives and other dangerous articles for carriage.

2. That this General Order No. 807 shall come into force on the 30th day of June, 1955.

HUGH WARDROPE,

Assistant Chief Commissioner,

The Board of Transport Commissioners for Canada.

GENERAL ORDER No. 808

In the matter of regulations respecting the installation and changes to interlocking systems:

File No. 521

TUESDAY, the 1st day of March, A.D. 1955.

HUGH WARDROPE, *Asst. Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

It is ordered

1. That the following regulations respecting the installation and changes to interlocking systems be, and they are hereby prescribed for the observance of every railway company within the legislative authority of the Parliament of Canada.

2. That the said regulations apply to new installations only and do not apply to existing installations made prior to the date of this Order.

3. That relief from these requirements may be granted upon adequate showing by the railway.

4. That the said regulations shall become effective as and from the date of this Order, and that General Order No. 547, dated the 2nd day of December, 1935, General Order No. 572, dated the 14th day of April, 1938, and General Order No. 688, dated the 21st day of June, 1946, be, and they are hereby rescinded.

REGULATIONS IN RESPECT TO INSTALLATION AND CHANGES TO
INTERLOCKING SYSTEMS

1. Without the approval of the Board, no company shall install, or make any major change to, interlocking systems.

2. With the application for such approval the company shall send to the Secretary of the Board three sets of a combined plan and profile, showing the complete layout of the interlocking. The plan shall show the location of the crossing, junction or movable bridge, and the position of all tracks and junctions. The plan and profile shall be drawn to the following minimum scales:

Plan—400 feet to an inch.

Profile—400 feet to an inch horizontal, 20 feet to an inch vertical.

When possible railway companies concerned shall agree on the plan before submitting it to the Board.

The first set is for approval by, and filing with, the Board. The second and third sets are for certification and return to the Applicant, duly certified as copies of the original plan and profile.

3. Definitions and symbols approved by the Signal Section of American Association of Railroads shall apply for the purpose of these requirements.

4. As soon as any interlocking installation is completed it may be placed in operation, and an application made to the Board for inspection. At movable bridges or railway crossings until an application for inspection is made and an Order received from the Board authorizing operation, all trains shall stop as required by the Railway Act.

5. Rail level crossings, junctions, and movable bridges shall be protected by interlocking signals or Stop signs. Derails may be required.

6. When railways bring all trains to a stop before making a movement over a railway crossing or movable bridge the protection may be modified, but at all such crossings or movable bridges not protected by interlocking appliances a Stop sign shall be erected at a point not more than 500 feet each way from the nearest frog of crossing, or each way from the nearest end of movable bridge; and all trains must be brought to a full stop at the Stop sign and shall not hereafter proceed until a proper signal has been given for that purpose.

7. When any movable bridge is secured for the period of closed navigation in the closed position with the locking mechanism so fixed as positively to prevent the displacement of the span in either the horizontal or vertical plane, engines and trains may pass over such bridge without stopping.

8. Over a movable bridge secured as aforesaid, unless otherwise provided by order of the Board for any specific bridge, the speed of a passenger train must not exceed twenty-five miles per hour and of any other train fifteen miles per hour until the entire train has passed the bridge.

9. Before the bridge is made movable after being secured in a closed position for the period of closed navigation and before the fixing device used for securing the bridge is removed all trains operating on the subdivision on which the bridge is situated shall be notified by Train Order and Bulletin that the bridge is again being made movable and that the interlocking plant or other protection is being restored, and the Train Order and Bulletin shall state the date and time when the change will be made effective.

10. At single track movable bridges derails when required shall be located not less than 500 feet each way from the ends of the movable bridge.

11. At multiple track movable bridges derails when required shall be located with the normal direction of traffic, not less than 500 feet, against the normal direction of traffic, not less than 300 feet, from the ends of the movable bridge.

12. Semaphore arms that govern train movements shall be displayed to the right of the mast as seen from an approaching train.

13. Interlocking signals shall be provided to govern train movements into and through interlocking limits.

14. Interlocking signals used to protect movable bridges shall be located not less than 500 feet from the nearest end of the movable bridge, except that interlocking signals used to govern movements against current of traffic on multiple tracks shall not be less than three hundred feet from the nearest end of the movable bridge.

15. Interlocking signals shall be power operated or pipe connected.

16. Signals preferably shall be placed over or to the right of the track they govern. Exception may be made on railways operated with the current of traffic to the left.

17. A power operated or inoperated approach signal shall be provided on the main track to govern the approach with the current of traffic to all interlocking signals. Exception may be made where the interlocking signal is the first signal encountered when leaving yard or station and authorized speed approaching such signal is not more than slow speed.

18. Aspects shall be shown by position of semaphore blades, colour of lights, position of lights, flashing of lights, or any combination thereof. They

may be qualified by marker plate, marker light, number plate, shape or colour of semaphore blades, or any combination thereof, subject to the following conditions:

- (a) Reflector lenses or buttons, or other devices, which depend for visibility upon reflected light from an external source, shall not be used in night aspects, except qualifying appurtenances;
- (b) A single white light shall not be used;
- (c) Night aspects of signals, except qualifying appurtenances shall be shown by lights, day aspects by lights or semaphore arms;
- (d) The aspects of cab signals shall be given by lights or illuminated letters;
- (e) Each aspect displayed by a signal shall be identified by a name and shall indicate action to be taken. Only one name and indication shall apply to those aspects indicating the same action to be taken; the same aspect shall not be used with any other name and indication.

19. The fundamental indications of signal aspects shall conform to the following:

- (a) A red light, a series of horizontal lights, or a semaphore blade in horizontal position shall be used to indicate STOP;
- (b) A yellow light or a series of lights in the upper quadrant at an angle of 45° to the vertical, or a semaphore blade in the upper quadrant at an angle of 45° , shall be used to indicate that speed is to be reduced and stop may be required;
- (c) A green light, a series of vertical lights, or a semaphore blade in a vertical position shall be used to indicate PROCEED at authorized speed.

20. Each signal shall be located with respect to the next signal or signals in advance which govern train movements in the same direction, so that the indication of a signal displaying a restrictive aspect can be complied with before reaching the signal in advance, by means of a brake application, other than an emergency application, initiated at such signal.

21. If an arm of a semaphore signal assumes a false restrictive position, or if a lamp in a light signal fails, the signal shall not display a less restrictive aspect than intended.

22. Measures shall be taken to prevent recurrence of an aspect displayed by a light signal different from the aspect intended, caused by light from an external source being reflected by the optical system of the signal.

23. For both mechanically and power operated plants, apparatus and control circuits shall be designed and so arranged in so far as possible that failure of any part of the system, the functioning of which affects safety of train operation, shall cause signals affected to give the most restrictive indications that conditions require.

24. The control circuit for power operated signals governing train movements at higher than restricted speed over switches, movable-point frogs and derails shall be selected through circuit controller operated directly by the points of such switch, frog or derail, or by switch locking mechanism, or through relay controlled by such circuit controller, for each switch, movable-point frog and derail in the route governed by such signal. Circuits shall be arranged so that such signals can display an aspect to proceed only when each such switch, movable-point frog and derail in the route is in proper position.

25. Signal control and electric locking circuits shall not be selected through the contacts of instruments designed primarily for indicating or annunciating purposes in which an indicating element attached to the armature is arranged so that it can in itself cause improper operation of the armature.

26. The control circuit for power operated signals governing train movements at higher than restricted speed shall be controlled through track relays for all track circuits in the route governed, or through repeating relays for such track relays.

27. Track circuits, and route locking or detector bar not less than 55 feet long, shall be installed to prevent operation of switches, derails, or movable-point frogs, underneath or directly in front of a train.

28. Unless electric approach locking is provided time locking shall be installed to prevent the changing of routes until after the interlocking signal has displayed the "Stop" indication a predetermined time.

29. Indication locking shall be provided for power-operated interlocking signals, power-operated switches, movable-point frogs and derails, and for all approach signals, except light signals, all aspects of which are controlled by track circuits or by line circuits which do not include a common return circuit.

30. Electric locks shall be of the forced drop type or equivalent.

31. At mechanical interlocking all mechanically operated facing point switches, derails and movable-point frogs in main track shall be locked by facing point locks. All other mechanically operated switches, derails and movable-point frogs shall be locked by facing point locks or switch and lock movements. Bolt locks shall be provided for facing point switches, derails and movable-point frogs if the signal governing the high speed route through them is mechanically operated.

32. Mechanical or electric locking shall prevent signals from displaying aspects which permit conflicting movements. Exception may be made to permit opposing signals to display aspects indicating "Proceed at restricted speed" on a track used for switching moves only by one train at a time.

33. Steel or wrought-iron pipe one inch or larger, or members of equal strength shall be used for operating connections for switches, derails, movable-point frogs, facing point locks, rail-locking devices of movable bridge protected by interlocking, and mechanically operated signals, except up-and-down rod which may be three-fourths inch pipe or solid rod. Pipes shall be fully screwed into coupling and both ends of each pipe shall be riveted to pipe plug with two rivets. Pipe line shall not be out of alignment sufficiently to interfere with the proper operation of the interlocking, shall be properly compensated for temperature changes and supported on carriers spaced not more than 8 feet apart on tangent and curve of less than 2° and not more than 7 feet apart on curve of 2° or more. With lever in any position, couplings in pipe line shall not foul carriers.

34. When a movable bridge is protected by interlocking the signals shall be so interlocked with bridge devices that before a signal governing movement over the bridge can display an aspect to proceed the bridge and track must be aligned and locked, with the bridge locking members within one inch of their proper position and with the track rail on the movable span within $\frac{3}{8}$ " of correct surface and alignment with the rail on the bridge abutment or fixed span.

35. At automatic interlocking, signal control circuits shall be controlled by track relays for all track circuits in the route governed and by track relays for all track circuits in conflicting routes within the interlocking limits, or through repeating relays for such track relays; through signal mechanism contacts, or relay contacts closed when signals for such conflicting route display a STOP indication, and through normal contacts of time releases for all conflicting routes or contacts of relays repeating the normal position of contacts of such time releases.

36. At automatic interlockings, a loss of shunt on track circuit of five seconds or less shall not permit an established route to be changed.

37. At grade crossing with an electric railway, the electric energy for non-coded direct-current track circuit shall feed away from the crossing.

38. The length of any track circuit, except trap circuit or special circuit not used for control of signal facilities shall be greater than maximum inner wheel base of any locomotive or car.

39. Where dead section exceeds 35 feet, special circuit shall be installed. Where shortest outer wheel base of a locomotive operating over such dead section is less than 35 feet, the maximum length of the dead section shall not exceed the length of the outer wheel base of such locomotive unless special circuit is used.

40. Track circuit shall be so designed that track relay will be in de-energized position if, when track circuit is dry, a shunt of 0.06 ohms resistance is connected across the track rails of the circuit, including fouling sections of turnouts.

41. Track relay shall be in de-energized position whenever any of the following conditions exist, and the track circuit of an automatic train-stop, train-control or cab-signal system shall be de-energized in the rear of the point where any of the following conditions exist:

- (a) When a rail is broken or a rail or switch frog is removed, except when a rail is broken or removed in the shunt fouling circuit of a turnout or crossover, provided, however, that shunt fouling circuit may not be used in a turnout through which permissible speed is greater than limited speed. It shall not be a violation of this requirement if a track circuit is energized when a break occurs within the limits of the joint bars or rail-joint bond or as a result of leakage current or foreign current in the rear of a point where a break occurs or a rail is removed; protecting signals shall be arranged to display their most restrictive indication and immediate steps taken to correct such condition when found.
- (b) When a train, locomotive, or car occupies any part of a track circuit, including fouling section of turnout, except turnouts of a hand-operated main-track crossover. It shall not be a violation of this requirement where the presence of sand, rust, dirt, grease, or other foreign matter on the rail prevents effective shunting.
- (c) Where switch shunting circuit is used:
 - 1. Switch point is not closed in normal position.
 - 2. A switch is not locked where facing-point lock with circuit controller is used.
 - 3. An independently operated fouling-point derail equipped with switch circuit controller is not in derailing position.

42. Track shunt wires and fouling wires, except shunt wires to switch circuit controller through which signal control circuits are controlled and track circuits are shunted, shall consist of at least two conductors, and each shall be of sufficient conductivity and maintained in such condition that the track relay will be in de-energized position when the circuit is shunted.

43. Where non-coded or non-reversible track circuits are in use and where energy to one track circuit is supplied through the front contacts of an adjoining track relay, the energy circuit to such track circuit shall be open and the track circuit shunted when such relay is in de-energized position.

44. Insulated rail joints shall be installed so as to prevent sufficient track circuit current from flowing between the rails separated by the insulation to cause a failure of any track circuit involved.

45. Signal wires carried on pole lines shall be securely tied in on insulators.

46. Insulated wire shall be protected from mechanical injury. The insulation shall not be punctured for test purposes. Splice in underground wire shall have insulation resistance at least equal to the wire spliced.

47. Each wire shall be tagged or otherwise marked so it can be identified at each terminal board where practicable.

48. Nomenclature shall correspond to that of the circuit plan. Tags or other marks of identification in instrument cases and apparatus housings shall be made of insulating material and shall not interfere with moving parts of apparatus.

49. Wires shall be installed so as not to interfere with operating parts of mechanisms.

50. Lightening arrester shall be properly connected. When grounded the resistance to ground preferably should be not more than 25 ohms.

51. When mechanical locking of interlocking machine is being changed or is removed from the machine or locking becomes disarranged or broken, unless protection equivalent to mechanical locking is provided by electric locking or electric circuits, train movements through the interlocking shall not be permitted until each switch, movable-point frog, or derail in the route is spiked, clamped, or blocked in proper position so that it cannot be moved by its controlling lever, and then train movements shall not exceed restricted speed until the interlocking is restored to normal operation. It will not be necessary to comply with this requirement at interlockings where protection is in service in accordance with paragraph 24, provided that the signal controls are arranged so that the signals cannot display an aspect the indication of which is less restrictive than "proceed at restricted speed".

52. Outdoor signal and instrument cases shall be locked, except signal mechanism housings at interlockings where maintenance forces are continuously on duty. Power interlocking machine cabinets, time releases and electric locks exposed on interlocking machines shall be locked or sealed.

53. The normal functioning of any device shall not be interfered with in testing or otherwise without first taking measures for insuring safety of train operation which depends on normal functioning of such device.

54. Switch circuit controllers, facing-point locks and switch-and-lock movements and their connections shall be securely fastened in place and contacts provided with an opening of not less than one-sixteenth inch when open.

55. Circuit controller operated by switch-and-lock movement shall be provided with normally open contacts which will remain closed and normally closed contacts which will remain open until switch is locked.

56. Electric locking shall be provided for each hand-operated switch or derail within interlocking limits, except where train movements are made at not exceeding slow speed, unless otherwise authorized by the Board. At manually operated interlocking it shall be controlled from the machine and shall be unlocked only after governing movements over such switch or derail display aspects indicating stop. Approach or time locking shall be provided.

57. Plunger of facing-point lock shall have at least 8-inch stroke. When lever is in reverse position plunger shall pass through lock rod one-half inch or more.

58. Bolt locks shall be provided so that signal governing movements over switch or derail and displaying an aspect indicating "stop" cannot be operated to display a less restrictive aspect while derail is in derailing position or when switch point is open one-half inch or more.

59. Locking dog of switch-and-lock movement shall extend through lock rod one-half inch or more in either normal or reverse position.

60. Pole changers on electric switch operating mechanism shall be provided so that movements of switch mechanism follows movement of controlling lever.

61. Point detectors shall be provided so that when switch mechanism is locked in normal or reverse position contacts cannot be opened by manually applying force at the closed switch point. Point detector circuit controllers shall be provided so that the contacts will not assume the position corresponding to switch point closure if the switch point is prevented by an obstruction from closing to within one-fourth inch.

62. Driving pieces, dogs, stops and trunnions shall be rigidly secured to locking bars. Swing dogs shall have full and free movement. Top plates shall be securely fastened in place.

63. The various parts of the locking bed, locking bed supports, and tapped stop rail shall be rigidly secured in place and aligned to permit free operation of locking.

64. Locking faces of locking dogs shall fit squarely with a minimum engagement when locked of at least one-half the designed locking face.

65. Mechanical locking shall be in accordance with locking sheet and dog chart currently in effect.

66. Locking and connections shall be provided so that, when a lever or latch is mechanically locked, the following will be prevented:

(a) Mechanical Machine.

(1) Latch-operated locking. Raising lever latch block so that bottom thereof is within three-eighths inch of top of quadrant.

(b) Electro-mechanical machine.

(1) Lever moving in horizontal plane. Moving lever more than three-sixteenths inch when in normal position or more than seven-sixteenths inch when in reverse position.

(2) Lever moving in arc. Moving lever more than 5 degrees.

(c) Power Machine.

(1) Latch-operated locking. Raising lever latch block so that bottom thereof is within seven thirty-seconds inch of top of quadrant.

(2) Lever moving in horizontal plane. Moving lever more than five-sixteenths inch when in normal position or more than nine-sixteenths inch when in reverse position.

(3) Lever moving in arc. Moving lever more than 5 degrees.

67. In electromechanical interlocking machine, locking between electric and mechanical levers shall be designed so that mechanical lever cannot be operated except when released by electric lever.

68. Latch shoes, rocker links, and quadrants of Saxby and Farmer machines shall be provided so that locking will not release if a downward force not exceeding 250 lbs. is exerted on the rocker while the lever is in the midstroke position.

HUGH WARDROPE,

*Assistant Chief Commissioner,
The Board of Transport Commissioners for Canada.*

GENERAL ORDER No. 809

In the matter of the Regulations for the Transportation of Explosives and Other Dangerous Articles in Rail Freight and Rail Express Service, including Specifications for shipping containers:

File No. 1717

TUESDAY, the 8th day of March, A.D. 1955.

HUGH WARDROPE, *Asst, Chief Commissioner.*F. M. MACPHERSON, *Commissioner.*H. B. CHASE, C.B.E., *Commissioner.*

Upon the recommendation of the Director of Operation of the Board—

It is ordered that the said Regulation be, and they are hereby, amended by cancelling and superseding or adding, items of commodity lists, section 72.5 (a), pages 5 to 25 of Tariff, page 3 of supplement No. 1 and page 4 of supplement No. 2 to read as follows:

Article	Classed as	Exemptions and packing (see sec.)	Label required if not exempt	Maximum quantity in one outside container by rail express
(add) Hydrochloric acid solution, inhibited.....	Cor. L.....	73.244	73.263	White 10 pints
(add) Aldrin, cast solid.....	See sec. 73.376(b)...			
(change) Aldrin mixtures, liquid, with more than 60% aldrin.....	Pois B.....	73.361		Poison 46 gallons
(add) Aldrin mixtures, liquid, with 60% or less aldrin.....	See sec. 73.361(b)...			
(add) Aldrin mixtures, dry, with 65% or less aldrin...	See sec. 73.376(b)...			
(change) Aldrin mixtures, dry with more than 65% aldrin.....	Pois B.....	73.376		Poison 200 pounds

Cancels and supersedes, heading and introductory text of paragraph (a), and subparagraphs (a) (1), (a) (7) and (a) (9) and add subparagraphs (a) (12), (a) (13), (a) (14) and (a) (15) of section 73.263, page 67 of Tariff, and page 10 of supplement No. 1 and page 8 of supplement No. 2 to read as follows:

Section 73.263—Hydrochloric (muriatic) acid, hydrochloric (muriatic) acid mixtures hydrochloric (muriatic) acid solution, inhibited and sodium chlorite solution.

(a) Hydrochloric (muriatic) acid, hydrochloric (muriatic) acid mixtures, hydrochloric (muriatic) acid solution, inhibited, and sodium chlorite solution not exceeding 40 per cent sodium chlorite must be packed in specification containers as follows:

(1) Spec. 15A, 15B, 15C, 16A or 19A. Wooden boxes with inside containers which must be glass, earthenware, polyethylene or other nonfragile plastic material resistant to the lading (bags are not authorized), not over 1 gallon each, except that inside containers up to 3 gallons each are authorized when only one is packed in each outside container.

(7) Spec. 1D, 1E, or 1EX (single-trip). Glass carboys in boxes or plywood drums, of not over 5.5 gallons nominal capacity. Means shall be provided so that accumulated total pressure in bottle shall not exceed 10 p.s.i. guage at 130° F. or shall vent at a pressure not to exceed 10 p.s.i. guage.

(9) Spec. 103B, 103B-W, 108 or 108A. Tank cars. Authorized for acid not over 38 per cent strength by weight.

(12) Spec. 103B100-W. Tank cars. Authorized for acid not over 44½ per cent strength by weight.

(13) Spec. 1F or 1G. Polyethylene carboys in plywood drums or boxes or wooden boxes.

(14) Spec. 17H or 37D. Metal drums (single-trip) not over 5 gallons capacity each. Authorized only for hydrochloric (muriatic) acid solution, inhibited, containing not to exceed 15 per cent hydrochloric (muriatic) acid. Drums must be lined throughout with a pliable plastic material impervious to the solution. Spec. 37D metal drums must be at least 24 gauge steel.

(15) Spec. 12B. Fibreboard boxes with inside containers of polyethylene, or other nonfragile plastic material resistant to the lading (bags are not authorized), not over 1 quart capacity each, suitably cushioned to prevent movement within the box. Gross weight of complete package must not exceed 65 pounds.

Cancels and supersedes Sec. 73.361, page 11 of supplement No. 1, and page 9 of supplement No. 2, to read as follows:

Sec. 73.361—Aldrin mixtures, liquid, with more than 60 per cent aldrin.
(a) Aldrin mixtures, liquid, with more than 60 per cent aldrin must be shipped in specification containers as follows:

(1) As prescribed in Sect. 73.346.

(2) Spec. 6A, 6B or 6C. Metal barrels or drums. Authorized only for viscous mixtures or those which may become partially solid.

(3) Spec. 17C or 17H. Metal drums (single-trip). Drums with opening exceeding 2.3 inches in diameter authorized only for viscous mixtures or those which may become partially solid.

(b) Aldrin mixtures, liquid, containing 60 per cent or less aldrin and no other material classed as dangerous under these regulations are not subject to the Board's Regulations.

Cancels and supersedes Sec. 73.376, page 12 of supplement No. 1, and page 10 of supplement No. 2 to read as follows:

Sec. 73.376—Aldrin mixtures, dry, with more than 65 per cent aldrin.

(a) Aldrin mixtures, dry, with more than 65 per cent aldrin, must be packed in specification containers as follows:

(1) As prescribed in Sect. 73.365.

(2) Dry mixtures containing 65 per cent or less aldrin, or aldrin, cast solid and containing no other material classed as dangerous under these Regulations are not subject to the Board's Regulations.

HUGH WARDROPE.

*Assistant Chief Commissioner,
The Board of Transport Commissioners for Canada.*

GENERAL ORDER No. 810

In the matter of regulations in respect of plans required to be filed with the Board in connection with applications for railway crossings, junctions and movable bridges under Sections 255 and 308 of the Railway Act:

File No. 521

FRIDAY, the 11th day of March, A.D. 1955.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

It is ordered that the following regulations in respect of plans to be filed with the Board in connection with applications for railway crossings, junctions and movable bridges under Sections 255 and 308 of the Railway Act be, and they are hereby prescribed for the observance of every railway company within the legislative authority of the Parliament of Canada:

REGULATIONS IN RESPECT OF PLANS REQUIRED TO BE FILED
WITH THE BOARD IN CONNECTION WITH APPLICATIONS
FOR RAILWAY CROSSINGS, JUNCTIONS AND MOVABLE
BRIDGES, SECTIONS 255 AND 308 OF
THE RAILWAY ACT

1. The applicant shall send to the Secretary of the Board an application accompanied by three sets of the plan and profile of both railways on each side of the proposed crossing or junction, or of the railway in the case of a movable bridge, for a distance of one mile in each direction.
2. The plan and profile shall be drawn to the following minimum scales:
Plan, 400 feet to an inch.
Profile, 400 feet to an inch horizontal.
20 feet to an inch vertical.

The first set is for approval by and filing with the Board; the second and third sets are for certification and return to the Applicant duly certified as copies of the approved plan and profile.

3. The Applicant shall serve a copy of the application and the plan and profile on the company whose line is to be crossed or joined, and file with the Board evidence of such service.
4. When it is proposed to cross a canal or navigable water approval of the Governor in Council shall be secured, as provided in Section 251 of the Railway Act, before making application to the Board.
5. Upon completion of the work application shall be made for leave to operate trains.

HUGH WARDROPE,
*Assistant Chief Commissioner,
The Board of Transport Commissioners for Canada.*

GENERAL ORDER No. 811

In the matter of specifications for highway crossing signals of the flashing light type:

File No. 27214.20

TUESDAY, the 15th day of March, A.D. 1955.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

It is ordered that, until further notice, signals of the flashing light type, used for the protection of highway traffic at a highway-railway level crossing shall conform to the following requirements:

1. In any case where the Board orders a highway crossing signal to be installed, a plan showing the layout must be filed for the approval of an Engineer of the Board.

2. A signal of the flashing light type shall be placed on each side of the tracks, and preferably to the right of approaching highway traffic and each signal shall have not less than four electric light units.

(a) The assembly of apparatus shall conform to Board's drawing entitled "Highway Grade Crossing Signals of the Flashing Light Type dated Feb. 15, 1955".

(b) Cantilever or bracket signal support, or left-hand signal, may be used where the standard assembly cannot be located in the proper place due to local conditions, or where the view is obstructed.

(c) Parts which function as background for light signal indications shall be painted with non-reflecting black. All other metal parts shall be painted white or aluminum.

3. Signs indicating the number of tracks shall be used where there is more than one track; the signs shall indicate the total number of tracks crossed. Signs shall be painted the same as required for highway grade crossing signs, except numerals shall be five and one-half inches high, and the letters four inches high.

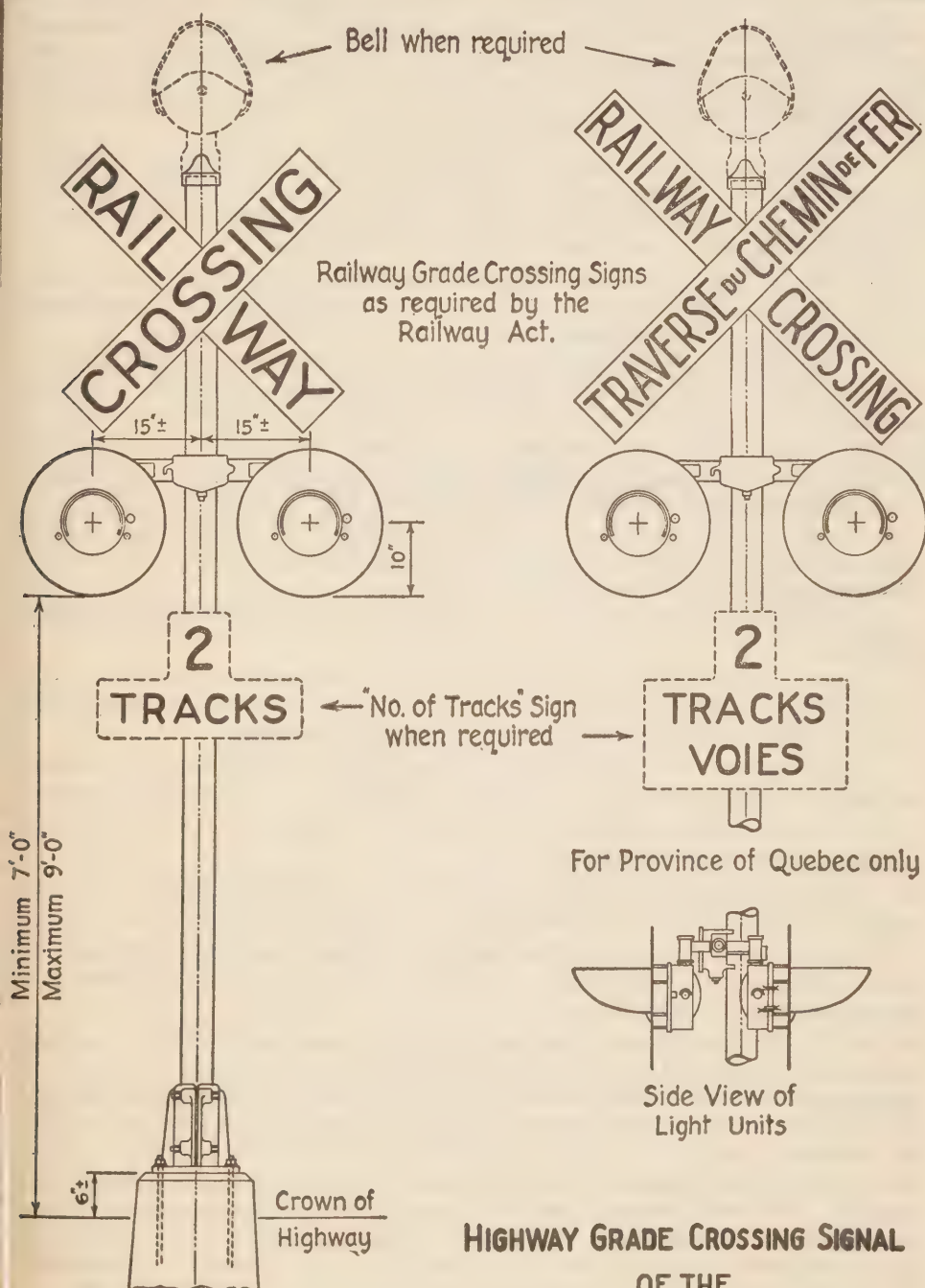
4. Two electric lights from each signal shall shine in each direction along the highway and additional units may be required if conditions require their use.

5. Electric lamps shall flash alternately. The number of flashes of each lamp per minute shall be not less than 30 or more than 45. Electric lamps shall each burn approximately the same length of time. Total burning time of both electric lamps shall be approximately the entire operating time of the signal.

6. Electric light units used shall conform to the A.A.R. Signal Section specification 190 or the equivalent. The proper roundel within this specification shall be used as determined by local conditions.

7. Bell where required shall form part of the signal and shall be designed, as far as practicable, as to ensure proper operation during unfavourable weather conditions. Size and range of bell shall be determined by local conditions.

8. (a) Signals indicating the approach of a train shall operate for such period of time before the arrival of any train operated over the crossing as is reasonably required to protect highway traffic.



February 15, 1955.

HIGHWAY GRADE CROSSING SIGNAL OF THE FLASHING LIGHT TYPE

(b) Where the distance from the most remote signal to the clearance of the farthest track on which trains operate at medium or higher speed, as measured parallel to the centre line of the highway, is 35 feet or less, the signals shall operate for not less than twenty seconds before the arrival of any train on such track. Where the distance is more than 35 feet, the minimum time shall be increased by one second for each additional ten feet.

9. For trains in either direction on main tracks over which trains normally operate in either direction, and for trains moving with the current of traffic on main tracks over which trains normally operate in one direction only, signals shall operate until the rear of the train clears the crossing.

10. Where train speeds on a given track vary considerably, additional control circuits may be required with timing devices so arranged that a warning time, not too long for the slower trains, will be automatically selected.

(a) Cut-out controls may be required to prevent unnecessary operation of the signals when trains make regular operating stops or perform switching operations on the operating circuits.

(b) If such controls are automatically operated, circuits shall be so designed or train speed restricted as to ensure the required operating time of signals, when the train again proceeds towards the crossing.

(c) Automatic control of the signals actuated by approaching trains, other than the train that has stopped or is performing switching operations shall take preference over any cut-out feature.

(d) Means shall be provided to ensure restoring of the controls to automatic operation.

11. The normal functioning of any device shall not be interfered with in testing or otherwise without first taking measures to ensure safety of traffic which depends on the normal operation of such device.

12. Details of the signals, gates where required, operating mechanisms and control circuits shall be in accordance with A.A.R. recommended practice.

13. Gates may be required where they are necessary to provide proper protection of highway traffic.

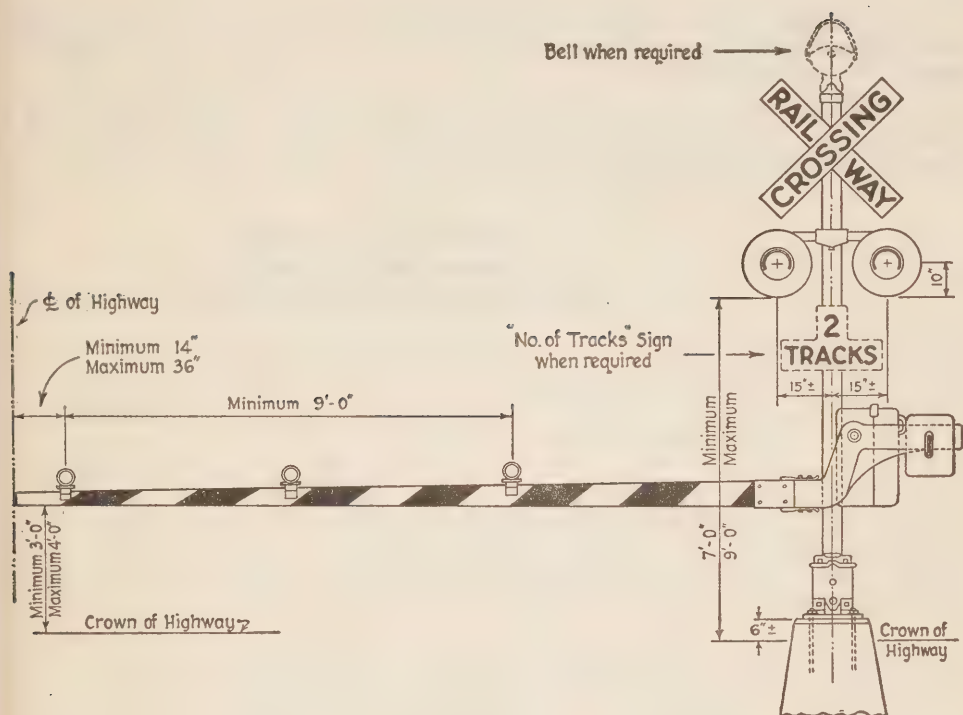
14. The assembly of gate apparatus shall conform to Board's drawing entitled "Gates at Highway Crossings" dated February 15, 1955.

15. The gates shall be installed as adjuncts to signals of the flashing light type and the following requirements shall apply in addition to the requirements previously set out in this Order.

16. A gate shall be placed on each side of the track, preferably to the right of approaching highway traffic. When indicating the approach of a train, it shall present, toward approaching highway traffic, the aspect of an arm equipped with red lights being lowered across the lane or lanes used by traffic approaching the crossing or, at rest in a horizontal position across the lane or lanes.

17. They shall preferably be mounted on the same post as the flashing light signals. Each individual gate post shall be provided with independent operating mechanism. Each gate arm shall be equipped with not less than three red lamps arranged to shine in both directions along the highway. Lights shall operate at all times when the gate is in position to obstruct highway traffic.

18. The light nearest the tip shall burn steadily, and the other lights shall flash alternately and in unison with the lights on the signal. The tip light shall be not less than fourteen inches or more than thirty-six inches from the tip of the arm.



GATES AT HIGHWAY CROSSINGS

February 15, 1955.

19. The gate arms shall be painted on both sides with alternate diagonal stripes of black and white. The stripes shall be sixteen inches wide. All other parts shall be painted white or aluminum.

20. The gate arms, when not indicating the approach of a train, shall not obstruct or interfere with highway traffic.

21. The gate arms shall operate uniformly, smoothly, and complete all movements without rebound or slap, and be securely held when in raised position.

22. The mechanism shall be so designed that if the arms, while being raised or lowered, strike or foul any object, they will readily stop, and, on removal of the obstruction, shall assume the position corresponding with the control apparatus.

23. The design of the gate operating mechanism shall, so far as practicable, be such as to ensure proper operation during unfavourable weather conditions, and if out of order, the gate arms shall assume the horizontal position across the roadway.

24. Circuits for operation of the gates shall be so arranged that gates will start their downward motion not less than three seconds after the signal lights start to operate. Gate arms shall reach full horizontal position before any train on a main track reaches the crossing, and shall remain down until the rear of the train has cleared the crossing.

25. Signal and instrument cases shall be locked.

It is further ordered that the said regulations do not apply to an existing installation made prior to the date of this Order unless and until the type of protection thereat is changed.

It is also further ordered that General Order No. 607, dated the 29th day of September, 1941, No. 676 dated the 29th day of November, 1945, and No. 680, dated the 16th day of February, 1946, be, and they are hereby rescinded.

HUGH WARDROPE,
*Assistant Chief Commissioner,
The Board of Transport Commissioners for Canada.*

GENERAL ORDER No. 812

In the matter of section 272 of the Railway Act, and general regulations regarding pipe crossings under railways.

File No. 9473

TUESDAY, the 12th day of July, A.D. 1955.

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

In pursuance of the powers conferred upon the Board by sections Nos. 33, 34 and 272 of the Railway Act, and of all other powers possessed by the Board in this behalf—

It is ordered

1. That the regulations hereto annexed under the heading "Standard Regulations Regarding Pipe Crossings, under Railways" be, and they are hereby made and adopted in regard to the laying and maintaining of sewer pipes, water pipes, pipes for oil and other flammable or highly volatile liquids and pipes for natural or manufactured gas under railways subject to the jurisdiction of the Board.

2. That any reference in any Order of the Board to "Standard Regulations Regarding Pipe Crossings under Railways" shall be deemed to be a reference to the regulations hereby made and adopted.

3. That every Order of the Board granting leave to lay, construct or maintain any pipe or pipes crossing under any railway subject to the jurisdiction of the Board shall be deemed to be, unless otherwise expressed, an Order for leave to lay, construct or maintain the same under and according to the said regulations, which regulations shall be considered as embodied in any such Order without specific reference thereto, subject, however, to such change or variation therein as shall be stated in such Order.

4. That General Orders Nos. 592 and 745 be, and they are hereby, rescinded.

STANDARD REGULATIONS REGARDING PIPE CROSSINGS
UNDER RAILWAYS

NOTE: These regulations shall apply unless the Board directs or permits a departure therefrom in respect to any particular crossing or crossings.

SEWER PIPES

1. (a) Sewer pipes under railway tracks shall be of sufficient strength to withstand the interior pressure and the exterior loading, and shall be properly connected at the joints, and the highest point of the pipe shall be below frost line, but not less than four (4) feet below the base of rail, for the full width of the railway right-of-way.

(b) Sewer pipes under railway tracks shall be constructed of hard brick laid in cement mortar, or standard glazed tile, or reinforced concrete, or corrugated metal, or other material which is satisfactory to the railway company,

(c) If standard glazed tile pipe or hard brick is used, the joints must be properly made with cement mortar and the pipe under every track must be encased in concrete, reinforced where necessary, a minimum of four (4) inches thick.

(d) Encasement where required shall extend a minimum distance of four (4) feet plus the depth of cover below base of rail in feet from the centre line on each side of single track, or four (4) feet plus the depth of cover in feet beyond the centre line of outside track, measured at right angles.

WATER PIPES

2. (a) Water pipes under railway tracks shall be constructed of cast iron or steel, or other material satisfactory to the railway company. Such pipes shall be of sufficient strength to withstand the interior pressure and exterior loading, and shall be properly connected at the joints, and the highest point of the pipe shall be below frost line, but not less than four (4) feet below the base of rail, for the full width of the railway right-of-way.

(b) Where required, an encasing pipe with ends left open and of sufficient strength to withstand exterior loading shall be used. The minimum length of such encasing pipe shall comply with Section 1 (d).

(c) An accessible emergency valve shall be installed on the carrier pipe on the pressure side of the crossing, if required.

PIPES CARRYING OIL OR OTHER FLAMMABLE OR HIGHLY VOLATILE LIQUIDS, OR NATURAL GAS, OR MANUFACTURED GAS AND UNDER PRESSURE NOT EXCEEDING 100 POUNDS PER SQUARE INCH

3. (a) Such pipes under railway tracks shall be constructed of Standard Pipe, or other material satisfactory to the railway company, properly fastened at the joints, and the top of the pipe or encasing pipe shall be not less than four (4) feet below the base of rail, or two and one-half ($2\frac{1}{2}$) feet below the bottom of the right-of-way ditch, or natural ground surface, whichever provides the lowest elevation.

(b) Where required, an encasing pipe of sufficient strength to withstand exterior loading shall be installed, extending the entire width of embankment or for such additional distance as may be required. Where encasing pipe is required, the minimum length shall be measured between points ten (10) feet from the centre line of single track or ten (10) feet beyond the centre line of outside track and perpendicular thereto.

(c) In the event that a pipe line constructed prior to the date of this Order is required to be operated at a pressure exceeding forty-five (45) pounds per square inch, application shall be made to the Board, with a copy of the application to the railway company concerned before operations are commenced at the increased pressure.

PIPES CARRYING OIL OR OTHER FLAMMABLE OR HIGHLY VOLATILE LIQUIDS, OR NATURAL GAS OR MANUFACTURED GAS AND UNDER PRESSURE EXCEEDING 100 POUNDS PER SQUARE INCH

4. (a) Such pipes under tracks shall be seamless or welded steel pipes, or of other material satisfactory to the railway company, with welded or other approved joints.

(b) Carrier pipes required to operate at a pressure not exceeding two hundred pounds per square inch (200 p.s.i.) shall be capable of withstanding a pressure of three hundred pounds per square inch (300 p.s.i.).

(c) In the case of gas pipe lines required to operate at a pressure in excess of two hundred pounds per square inch (200 p.s.i.), the carrier pipe at the crossing shall conform with the requirements of the American Standards Association Code for Gas Transmission and Distributing Piping System, Section 8 of American Standard Code of Pressure Piping ASA B31.1-1955.

In the case of oil pipe lines required to operate at a pressure in excess of two hundred pounds per square inch (200 p.s.i.), the carrier pipe at the crossing shall be manufactured in accordance with the specifications listed in the American Standards Association Code for Pressure Piping ASA B31.1. The mill test pressure of carrier pipe must be equal to at least one and one-half times the anticipated maximum working pressure at the crossing. All welds at the crossing shall be tested.

(d) Carrier pipes under railway tracks shall be encased in a larger steel casing pipe of sufficient strength to withstand all stresses resulting from its location under the tracks.

(e) Carrier pipes having a diameter of three (3) inches or more shall be held clear of the casing pipe by properly designed supports.

All supports or insulations or centering devices for the carrier pipe shall be so designed and constructed that no loads from the roadbed, track or traffic are transmitted to the carrier pipe.

(f) Casing pipe shall extend to a minimum distance of forty-five (45) feet from the centre line on each side of single track or forty-five (45) feet beyond the centre line of outside track, measured at right-angles thereto, or for such additional distance as may be required. The foregoing distance may be reduced to thirty (30) feet in the case of other than main tracks as may be defined by the railway company.

(g) The inside diameter of the casing pipe shall be sufficiently large to permit ready withdrawal of carrier pipe without disturbing the road-bed and the casing pipe shall be installed with an even bearing throughout its length.

(h) Casing pipe shall be so constructed as to prevent leakage of any matter from the casing throughout its length under tracks and railway right-of-way except through vent pipes.

(i) Casing pipe shall be so installed as to prevent the formation of a water-way under the railway.

(j) The top of the casing pipe shall be at a depth of not less than six (6) feet below the base of rail, or not less than three (3) feet six (6) inches below the bottom of the right-of-way ditch or natural ground surface, whichever provides the greater depth.

The foregoing depths of six (6) feet and three (3) feet six (6) inches, may be reduced to four (4) feet and two (2) feet six (6) inches respectively in the case of other than main tracks, as may be defined by the railway company.

(k) Ends of casing pipe shall be suitably sealed to the outside of carrier pipe and properly vented above ground. The diameter of the vent pipes shall be not less than two (2) inches. Vent pipes shall extend not less than four (4) feet above ground surface and shall be placed approximately one (1) foot from the ends of the casing pipe. Tops of vent pipes shall be fitted with turn-down elbows properly screened. The pipe crossing shall be suitably identified with markers located on each side of the railway right-of-way, approximately on the limits thereof.

(*l*) Pipe lines shall be located to cross railway tracks at an angle as close as practicable to ninety (90) degrees, but not less than forty-five (45) degrees. Pipe lines shall not be laid closer than thirty (30) feet to any portion of any bridge, building, or other important structure on railway right-of-way which might be damaged by leakage from, or failure of the pipe line.

(*m*) Carrier pipes, casing pipes and vent pipes shall be suitably insulated from underground conduits carrying electric wires on railway right-of-way, and vent pipes shall be at least four (4) feet distant from aerial electric wires.

(*n*) Whenever carrier pipe is cathodically protected, the railway company shall be notified so that suitable tests may be made to ensure that railway communication and signal systems, or other facilities may be adequately protected from the cathodic currents.

GENERAL REGULATIONS COVERING THE INSTALLATION OF PIPES UNDER TRACKS APPLICABLE TO PIPES DESCRIBED IN SECTIONS NOS. 1. 2. 3. AND 4

5. (*a*) Before commencing the installation of a pipe or pipes under the railway the party proposing to do so shall seek the written consent of the railway company owning, operating or having control over the railway proposed to be affected by the installation, and if required shall send to the railway company detail plans of the proposed installation.

(*b*) All work in connection with the laying, maintaining, renewing repairing, or removing of the said pipe or pipes installed under railways in accordance with these regulations and the continued supervision of the same shall be performed by, and all costs and expenses thereby incurred shall be borne and paid by the owner of the said pipe or pipes; but no work at any time shall be done in such a manner as to unduly obstruct, delay or interfere with the operation of the trains or traffic of the railway company, or other company using the said railway.

(*c*) The party owning the pipe or pipes shall at all times maintain the said pipe or pipes in good working order and condition, so that at no time shall any damage be caused to the property of the railway company, or any of its tracks be obstructed, or the usefulness or safety of the same for railway purposes be impaired, or the full use and enjoyment thereof as heretofore by the railway company, or other company using the said railway, be in any way interfered with.

(*d*) In the event of the construction of any additional tracks, structures or facilities on the railway right-of-way as it existed on the date of the installation of the crossing, the party owning the pipe or pipes shall forthwith on demand by the railway company, do such things as may be necessary to cause the said pipe to comply with these regulations in relation to such additional tracks, structures or facilities.

(*e*) Before any work of laying, renewing, repairing, or removing the said pipe is begun, the party proposing to do so shall give to the local superintendent of the railway company at least 48 hours prior notice thereof in writing to enable the railway company to appoint an Inspector to see that the work is performed in such a manner as shall, in all respects, comply with these regulations; except that in cases of emergency, the appropriate official of the railway company shall be notified immediately. The amount of wages and expenses of such Inspector shall be paid by the party owning the pipe or pipes upon receipt from the railway company of a statement showing in reasonable detail the particulars of such wages and expenses, except that in the case of a municipal corporation desiring to lay a pipe under the railway on a highway which is senior to the railway, the cost of such inspection shall be borne by the railway.

(f) The party owning the pipe or pipes shall at all times wholly indemnify the company owning, operating or using the railway, from and against all loss, cost, damage, injury and expense to which such company may be put by reason of any injury or damage to person or property caused by any of the said pipe or pipes, or by any oil, gas, water, or any other substance being carried in the said pipes, or by any works herein provided for, or by the imprudence, neglect, or want of skill of the employees or agents of the party owning the pipe or pipes in connection with the laying, maintenance, renewal, repair, or removal of the said pipe, or the use thereof, unless the cause of such loss, cost, damage, injury, or expense can be traced elsewhere.

(g) Any dispute between the parties as to the interpretation of these regulations may be referred by either party to the Director of Engineering of the Board, whose decision shall be subject to appeal to the Board.

(h) An application to the Board for authority to lay or maintain pipes under the railway is not required in cases in which pipes are to be laid or maintained under the railway with the consent of the railway company, in accordance with these regulations.

A. SYLVESTRE,
Deputy Chief Commissioner.

GENERAL ORDER No. 813

In the matter of the Pipe Lines Act and the construction of company pipe lines across any highway, railway, irrigation ditch, underground telegraph, telephone or electric power line or pipe line, or the construction of a highway, private road, railway, irrigation ditch, drain, telegraph, telephone, or electric power line or pipe line across a company pipe line:

TUESDAY, the 12th day of July, A.D. 1955.

File No. 45371.5

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

In pursuance of the powers vested in the Board by the Pipe Lines Act and all other powers possessed by the Board in this behalf—

It is ordered

1. That the regulations hereinafter set forth under the heading, "Standard Regulations Regarding Company Pipe Line Crossings" be, and they are hereby made and adopted in respect to the construction of a company pipe line across any highway, railway, irrigation ditch, underground telegraph, telephone or electric power line or pipe line, or the construction of a highway, private road, railway, irrigation ditch, drain, underground telegraph, telephone or electric power line or pipe line across a company pipe line.

2. That any reference in an Order of the Board to "Standard Regulations Regarding Company Pipe Line Crossings" shall be deemed to be a reference to the regulations hereby made and adopted.

3. The General Order No. 732 be, and it is hereby, rescinded.

STANDARD REGULATIONS REGARDING COMPANY
PIPE LINE CROSSINGS

1. These regulations shall apply unless the Board directs or permits a departure therefrom in respect to any particular crossing or crossings.

2. In these Regulations,

(a) "utility line" means an irrigation ditch, underground telegraph, telephone or electric power line or pipe line other than a company pipe line: and

(b) "company pipe line" or "line" means a pipe line for the transportation of oil or gas that a company is under a Special Act authorized to construct or operate or is owned by or leased to a company and that is subject to the legislative authority of the Parliament of Canada, and includes all branches, extensions, tanks, reservoirs, pumps, racks, loading facilities, inter-station systems of communication by telephone, telegraph or radio and property real and personal and works connected therewith.

3. Before constructing a company pipe line across any highway, railway, utility line or other company pipe line, or before constructing any highway, private road, railway, drain or utility line across a company pipe line, the party proposing to do so, hereinafter called the applicant, shall apply to the Board for leave, and upon such application, unless exempted by the Board, shall file with the Secretary of the Board three sets of a plan and profile combined of the crossing.

The plan shall be made to a scale of one inch to 1,000 feet and shall indicate clearly the location of the crossing and of all works involved in the crossing.

The profile shall be on the following scale:

Horizontal—one inch equals 20 feet

Vertical—one inch equals 10 feet

The plan of a company pipe line crossing any railway shall show the anticipated maximum working pressure and the mill test pressure of the carrier pipe, also specifications including the wall thickness and diameter of the carrier and casing pipes at the crossing.

4. The applicant shall give notice of the application with a copy of the plan profile combined, unless exempted by the Board, to the authority having control over the highway, railway, utility line, or company pipe line to be crossed, or to the owner of such railway, utility line or company pipe line, as the case may be.

5. (a) In the case of gas pipe lines the carrier pipe of a company pipe line at the crossing shall conform with the requirements of the American Standards Association Code for Gas Transmission and Distributing Piping System, Section 8 of American Standard Code of Pressure Piping ASA B31.1-1955.

(b) In the case of oil pipe lines the carrier pipe line of a company pipe line at the crossing shall be manufactured in accordance with the specifications listed in the American Standards Association Code for Pressure Piping ASA B31.1. The mill test pressure of carrier pipe must be equal to at least one and one-half times the anticipated maximum working pressure at the crossing. All welds at the crossing shall be tested.

6. Any dispute between the parties as to the interpretation of these regulations may be referred by either party to the Director of Engineering of the Board, whose decision shall be subject to appeal to the Board.

RAILWAY CROSSINGS

7. Regulations numbering 4 (d) to 4 (n) inclusive, and 5 (b) to 5 (f) inclusive, of the "Standard Regulations Regarding Pipe Crossings under Railways", approved by General Order No. 812 shall apply to the construction of a company pipe line under any railway, whether the railway is, or is not subject to the jurisdiction of the Board under the provisions of the Railway Act. No other regulations approved by General Order No. 812 shall apply to a company pipe line.

THE FOLLOWING REGULATIONS APPLY TO THE CROSSING OF ANY HIGHWAY, UTILITY LINE OR OTHER COMPANY PIPE LINE BY A COMPANY PIPE LINE

8. Under any important highway the carrier pipe shall be encased in a larger steel casing pipe or conduit of sufficient strength to withstand all stresses and strains resulting from its location.

9. Casing pipe at any important highway crossing shall, unless the public authority concerned agrees to a lesser width, extend the full width of the existing highway right-of-way, and when required at other crossings the length of the casing pipe shall be determined by local conditions.

10. The ends of the casing pipe shall be suitably sealed to the outside of the carrier pipe and properly vented above the ground with vent pipes not less than 2 inches in diameter, and extending not less than 4 feet above the ground surface.

Vent pipes shall be connected with the casing pipe approximately one foot from the ends thereof. The top of each vent shall be fitted with a turn-down elbow, properly screened.

Where a casing pipe is installed under any highway, vent pipes with suitable identification markers are to be located on each side of the highway right-of-way, approximately on the limits thereof.

11. The inside diameter of the casing pipe shall be sufficiently large to permit ready withdrawal of the carrier pipe without disturbing the structure of the highway crossed. The casing pipe shall be installed with an even bearing throughout its length and in such manner as to prevent formation of a waterway along it.

The casing pipe shall be installed so as to prevent leakage, except through vent pipes.

12. The top of the casing pipe, or of the carrier pipe where casing is not required, shall be not less than 4 feet below the surface of the highway, or less than 1 foot below the highway ditches, and the pipe line shall be so located that it will not obstruct the drainage, or interfere with traffic on the highway, or highway maintenance. Where it is not practical to secure the required depth, special construction will be necessary and will be subject to the approval of the Board.

13. The carrier pipe, casing pipe and vent pipes shall be suitably insulated from underground conduits carrying electric wires and vent pipes shall be at least 4 feet distant from aerial electric wires.

14. The construction of the company pipe line shall be carried out in such a manner as not to unduly interfere with, obstruct or endanger traffic at any highway crossing, and all necessary precautions shall be taken by the company to protect traffic by the use of signs, signal, flagman or watchman.

15. All work in connection with the construction, maintenance, renewal and repair of the company pipe line, and the continued supervision of the same, shall be performed by the pipe line company and, unless the renewal or repair is made necessary by reason of the negligence of others, all costs and expenses of such work shall be borne and paid by the pipe line company, and no work at any time shall be done in such manner as to unduly obstruct, delay or interfere with the operation of any highway or utility line, or other company pipe line.

16. The pipe line company shall at all times be responsible for maintaining the company pipe line in good working order and condition, so that at no time shall any damage be caused to any highway, utility line, or other company pipe line, or its usefulness or safety be impaired, or the full use and enjoyment thereof be in any way interfered with.

17. Subject to the proviso hereinafter set out, before any work of constructing, renewing or repairing the company pipe line is begun, the pipe line company shall give the authority having control over the highway, utility line, or company pipe line, or to the owner of the utility line, or company pipe line, as the case may be, at least 48 hours notice thereof in writing; provided however, that in an emergency, the work of repairing the company pipe line may be begun without giving notice, but in such case notice shall be given, as soon as is reasonably possible.

THE FOLLOWING REGULATIONS APPLY TO THE CROSSING OF
COMPANY PIPE LINES BY ANY HIGHWAY, PRIVATE ROAD,
RAILWAY, UTILITY LINE, DRAIN OR OTHER
COMPANY PIPE LINE

18. Except as hereunder provided, all work in connection with the construction, maintenance, renewal and repair of any crossing of a company pipe line by any highway, private road, railway, utility line, drain or other company pipe line, and the continued supervision of the same shall be performed by the authority having control over such highway, railway, utility line, drain or other

company pipe line, or the owner of such private road, railway, utility line, drain or other company pipe line as the case may be, at its own cost and expense, unless the renewal or repair is made necessary by the negligence of others. No work shall at any time be done in such a manner as to unduly obstruct, delay or interfere with the operation of the company pipe line. Notwithstanding the foregoing, all work which might disturb the pipe, which necessitates re-aligning, raising or lowering the pipe or excavating material from over or round it, or the addition of casing or other appurtenances thereto, shall be performed by the authority having control over the company pipe line or the owner thereof, as the case may be, and all costs and expenses of such work shall be borne and paid by the authority having control over such highway, railway, utility line, drain or other company pipe line, or the owner of such private road, railway, utility line, drain or other company pipe line, as the case may be.

19. The authority having control over any highway, railway, utility line, drain or other company pipe line, or the owner of any private road, railway, utility line, drain or other company pipe line crossing a company pipe line shall at all times maintain such crossing in good working order and condition, so that at no time shall any damage be caused to the company pipe line or its usefulness or safety be impaired, or the full use and enjoyment thereof be in any way interfered with.

20. Subject to the proviso hereinafter set out, before any work of constructing, renewing or repairing any crossing of a company pipe line is begun, the authority having control over such crossing or the party making, owning or operating such crossing, as the case may be, shall give to the owner of the company pipe line at least 48 hours notice thereof in writing to enable the pipe line company to appoint an Inspector to see that the work is performed in such a manner as shall, in all respects, comply with these regulations; except that in cases of emergency, the appropriate official of the pipe line company shall be notified immediately. The amount of the wages and expense of such Inspector shall be paid by the authority having control over such highway, railway, utility line, drain or other company pipe line, or the owner of such private road, railway, utility line, drain or other company pipe line, as the case may be, upon receipt from the pipe line company of a statement showing in reasonable detail the particulars of such wages and expenses.

INDEMNITY

21. The applicant shall at all times wholly indemnify the authority having control over the highway, railway, utility line or company pipe line, or the owner of the railway, utility line or company pipe line, as the case may be, from and against all loss, costs, damage, injury and expense to which the authority or owner may be put by reason of any damage or injury to persons or property caused by the construction, maintenance or operation of the company pipe line, or any other works herein provided for, as well as against any damage or injury resulting from the imprudence, neglect, or want of skill of the employees or agents of the applicant in connection with the construction, operation, maintenance, renewal or repair of said company pipe line, or any other works herein provided for, unless the cause of such loss, cost, damage, injury or expense can be traced elsewhere.

A. SYLVESTRE,

*Deputy Chief Commissioner,
The Board of Transport Commissioners for Canada.*

GENERAL ORDER No. 814

In the matter of Regulations respecting Agreed Charges pursuant to Section 32 of the Transport Act:

File No. 40994

FRIDAY, the 29th day of July, A.D. 1955.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

In pursuance of the powers specifically conferred by Section 32 of the Transport Act—

It is ordered

1. That the regulations attached hereto, entitled, "Regulations of The Board of Transport Commissioners for Canada with respect to Agreed Charges pursuant to Section 32 of the Transport Act", be, and they are hereby, prescribed for observance by carriers and shippers making agreed charges under the provisions of the Transport Act.

2. That General Orders No. 581, dated January 1, 1939; No. 599, dated December 20, 1940; No. 796, dated June 3, 1954; and No. 802, dated August 25, 1954, be, and they are hereby, rescinded.

HUGH WARDROPE,

Assistant Chief Commissioner,

The Board of Transport Commissioners for Canada

REGULATIONS OF THE BOARD OF TRANSPORT COMMISSIONERS
FOR CANADA WITH RESPECT TO AGREED CHARGES PURSUANT
TO SECTION 32 OF THE TRANSPORT ACT.

1. Agreements for agreed charges, in tariff form, shall be of uniform size, viz., eight (8) inches wide by eleven (11) inches long.

2. A duplicate original of an agreement for an agreed charge or amendment thereto shall be filed with the Board accompanied by a Filing Advice in the form set forth in Appendix A hereto.

3. Each agreement for an agreed charge filed with the Board shall bear in its upper right margin a consecutive number of the carrier or person filing the same, with the prefix "CTC(AC)".

4. Filing with the Board is deemed to be as of the date received by the Board, which date shall be stamped upon the filed document.

5. Agreements for agreed charges shall contain specific reference to the carriers and shippers who are participants therein.

6. Concurrently with the forwarding of an agreement for an agreed charge to the Board for filing, carriers participating therein who are subject to the jurisdiction of the Board shall publish such agreement by keeping on file, and open to public inspection during reasonable business hours, a copy thereof at the following places respectively to the extent stated:

- | | | |
|--|---|------------------------------------|
| <p>(a) Headquarters
Regional offices
Division offices
District offices</p> | } | All agreements for agreed charges. |
|--|---|------------------------------------|

- (b) Agency offices or stations Such agreements for agreed charges as apply from or to such offices or stations.

7. Notices of Intention, filed by United States carriers, shall be in the form set out in Appendix B hereto.

8. Notice of Intent, filed by a shipper or pursuant to subsection (9) of Section 32 of the Transport Act shall be in the form set out in Appendix C hereto.

9. Applications to the Board pursuant to subsection (10) of Section 32 for a charge to be fixed for the transport of goods of a shipper shall be governed by the following rules of practice:

- (1) The application shall be filed with the Board and be signed by or on behalf of the applicant and contain a clear and concise statement of the facts relied upon to establish unjust discrimination and clearly identify the agreement for the agreed charge by specifying its CTC(AC) number and the names of the carriers that are parties to the agreement. The application filed with the Board shall also have an endorsement showing the names of parties to which a copy of the application was delivered or mailed as required by rule (2).
- (2) The applicant shall concurrently deliver or mail a copy of the application to each carrier and shipper, or agent thereof, who is a party to the agreement for the agreed charge involved.
- (3) Within fifteen (15) days of the service of the copy of the application any of the carriers or shippers may file an answer thereto and shall concurrently deliver or mail a copy thereof to the applicant.
- (4) Within five (5) days of the service of an answer the applicant may file a reply thereto and shall concurrently deliver or mail a copy thereof to the party who filed the answer.
- (5) Upon completion of these pleadings or expiration of the periods specified the Board will decide whether its findings shall be made upon the written submissions or what alternative action shall be taken.
- (6) The Board may in any case extend the period for filing an answer or reply or permit a departure from the rules.

Appendix "A"

FORM OF FILING ADVICE

(Name and address of carrier)

Date.....

FILING ADVICE (AC).....
(number consecutively)

Director,
 Traffic Department,
 Board of Transport Commissioners for Canada,
 Ottawa, Ont.

In compliance with the requirements of the Transport Act I submit here-
 with duplicate original agreement for an agreed charge or amendment thereto
 for filing with the Board, as follows:

Supplement Number	CTC (AC) Number	Effective Date	General Description
<i>Note</i> —If an acknowledgement of receipt by the Board for filing is required, a duplicate of the filing advice must be enclosed.			

Name of filing officer.....

Title.....

Appendix "B"

NOTICE OF INTENTION

(Name and address of carrier filing notice)

Date.....

Director,
Traffic Department,
Board of Transport Commissioners for Canada,
Ottawa, Ont.

IN RE: Agreed Charge C.T.C. (AC).....insert number

The..... (name of United States carrier).....
a United States carrier, hereby files with the Board of Transport Commissioners
for Canada this NOTICE OF INTENTION to become a party to the agreement
for an Agreed Charge as identified above from..... (point of origin).....
to..... (destination)..... via..... (description of route).....

(Signed)

(Title).....

The undersigned railway companies, being all the railway companies over whose lines the above described continuous route by rail is established, hereby concur.

Names of Railway Companies:—

(Signed)

(Title).....

Appendix "C"

NOTICE OF INTENT

(Name and address of shipper filing notice)

Date.....

Director,
Traffic Department,
Board of Transport Commissioners for Canada,
Ottawa, Ont.

IN RE: Agreed Charge C.T.C. (AC).....
insert number

The.....(name of shipper).....hereby files with the Board of
Transport Commissioners for Canada this NOTICE OF INTENT to become a
party to the agreement for an agreed charge as identified above, to become
effective on the.....day of.....19...., with the consent of the under-
signed carriers.

(Signed).....
shipper

(Title).....

Consented to for and on behalf of carriers party to the above agreement.

(Signed).....

(Title).....

GENERAL ORDER No. 815

In the matter of General Order No. 41, amended by General Order No. 788, which approved two forms of bill of lading for use in Canada:

File No. 3678

FRIDAY, the 12th day of August, A.D. 1955.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

It is ordered that General Order No. 788, be, and it is hereby, amended by striking out the last paragraph of the said Order which reads as follows:

“AND IT IS FURTHER ORDERED that the forms hereby approved shall be the only forms of bills of lading to be used by all railway companies subject to the legislative authority of the Parliament of Canada except such forms as may hereafter be prescribed or approved by order of the Board.”

A. SYLVESTRE,
*Deputy Chief Commissioner,
The Board of Transport Commissioners for Canada.*

GENERAL ORDER No. 816

In the matter of approval of Supplement No. 4 to the Board of Transport Commissioners for Canada Regulations for the Transportation of Explosives and Other Dangerous Articles in Rail Freight and Rail Express Service:

File No. 1717·B

FRIDAY, the 26th day of August, A.D. 1955.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

Upon reading the submission filed—

It is ordered

1. That the said Supplement No. 4 to the Board of Transport Commissioners for Canada Regulations for the Transportation of Explosives and Other Dangerous Articles in Rail Freight and Rail Express Service, on file with the Board under file No. 1717·B, be, and it is hereby, authorized for the observance of the railway companies subject to the jurisdiction of the Board which accept explosives and other dangerous articles for carriage.

2. That this General Order No. 816 shall come into force on the 1st day of November, 1955.

HUGH WARDROPE,
*Assistant Chief Commissioner,
The Board of Transport Commissioners for Canada.*

GENERAL ORDER No. 817

In the matter of the Regulations for the Transportation of Explosives and Other Dangerous Articles in Rail Freight and Rail Express Service, including Specifications for shipping containers:

File No. 1717·88·81

MONDAY, the 21st day of November, A.D. 1955.

HUGH WARDROPE, *Asst. Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Upon the recommendation of the Director of Operation of the Board—

It is ordered that the said Regulations be, and they are hereby, amended as follows:

(1) Add specifications 12II as an additional fibreboard box in section 73·63, page 36 of Tariff, and page 12 of Supplement No. 3, and page 4 of Supplement No. 4, subparagraph (a) (2), paragraph (b), subparagraphs (c) (1), (c) (2), (d) (2) and (e) (2).

(2) Add Specification 12H as an additional fibreboard box in section 73·64, page 37 of Tariff, subparagraph (a) (2).

(3) Add Specification 12H as an additional fibreboard box in section 73·65, page 37 of Tariff and page 13 of Supplement No. 3, subparagraphs (a) (2) and (h) (2).

(4) Add Specification 12H as an additional fibreboard box in section 73·66, page 13 of Supplement No. 3 and page 4 of Supplement No. 4, subparagraphs (d) (1), (e) (1) and (g) (1).

(5) Add Specification 12H as an additional fibreboard box in section 73·67, page 13 of Supplement No. 3, subparagraph (a) (1).

(6) Add Specification 12H as an additional fibreboard box in section 73·68, page 38 of Tariff, subparagraph (a) (1).

(7) Add Specification 12H to page 211 of Tariff, as follows:

Specification 12H

FIBREBOARD BOXES

1. Compliance. (a) Required in all details.

2. Definitions. (a) Terms such as "200-pound test" mean minimum strength, Mullen or Cady test.

(b) "Joints" are where edges of parts of box are connected together in setting up the box. Generally done by boxmaker.

(c) "Seams" are where edges of parts of box are visible, except joints, when box is closed.

3. Classification of board. (a) Fibreboard is hereby classified by strength¹ of completed board as in first column of the following table; weights specified in the table are the minimum authorized.

Classified strength ¹ of completed board	Facings for corrugated fibreboard	
	Double-faced Minimum combined weight of facings (pounds per 1,000 sq. ft.)	Double-wall— Minimum combined weight of facings including centre liner (pounds per 1,000 sq. ft.)
175.....	75	..
200.....	84	92
275.....	138	110
325.....	138	110
350.....	180	126
375.....	180	180
400.....	180	180
450.....	180	180

¹Mullen or Cady test (minimum).

4. Corrugated fibreboard. (a) Both outer facings water resistant; corrugated sheets must be at least 0.009 inch thick and weight not less than 26 pounds per 1,000 square feet; all parts must be securely glued together throughout all contact areas.

5. Stitching staples. (a) Of steel wire, copper-coated or equivalent in non-sparking quality, at least $\frac{3}{32}$ " x 0.019", or equal cross section formed into staples about $\frac{7}{16}$ " wide.

6. Tape. (a) Used for manufacturers' joints must be coated with glue at least equal to No. 1-3/4 Peter Cooper standard. Cloth tape of strength, across the woof, at least 70 units, Elmendorf test. Sisal tape of 2 sheets of No. 1 Kraft paper, total weight 80 pounds per ream (500 sheets, 24" x 36"); sheets to be combined with asphalt and reinforced by unspun sisal fibres completely embedded in the asphalt and extending across the tape.

7. Test. (a) Acceptable board must have prescribed strength, Mullen or Cady test, after exposure for at least 3 hours to normal atmospheric conditions (50 to 70 per cent relative humidity), under test as follows:

(1) Clamp board firmly in machine and turn wheel thereof at constant speed of approximately 2 revolutions per second.

(2) Six punctures required, 3 from each side; all results but one must show prescribed strength.

(3) Board failing may be retested by making 24 punctures, 12 from each side; when all results but 4 show prescribed strength, the board is acceptable.

(4) For corrugated fibreboard, double-pop test may be disregarded.

8. Type authorized. (a) Shall be of corrugated fibreboard, telescoping type, 1-piece or 3-piece construction without recessed heads, as follows:

(1) Box to consist of top and bottom sections divided equally or unequally and inner lining tube. The lining tube must be staple stitched to the lower section of the box to give in effect a 2-piece box. (See para. 11).

(2) Box to consist of full depth top and bottom sections completely telescoping. No inner lining tube required. Two variations are authorized, one with bottom slotted on ends and cover on sides, second, with both cover and bottom slotted on sides.

(3) Box to consist of 1-piece or 3-piece, without recessed heads, fitted with lining tube as prescribed in para. 11. Flaps must butt or have full overlap excepting that inner flaps may overlap $\frac{1}{2}$ inch.

9. Forming. (a) Parts must be cut true to size and so creased and slotted as to fit closely into position without cracking, surface breaks, separation of parts outside of crease, or undue binding.

10. Joints. (a) Lapped $1\frac{1}{2}$ " and stitched at $2\frac{1}{2}$ " intervals and within 1" of each end of joint; body joints must be double-stitched (2 parallel rows of stitches).

(b) For glued lap joint, the sides of box forming joint must lap not less than $1\frac{1}{4}$ " and be firmly glued throughout entire area of contact with a glue or adhesive which cannot be dissolved in water after the film application has dried.

(c) For lining tubes only, one butt joint taped (see para. 6) tape not less than 3" wide is authorized.

11. Authorized gross weight and parts required. (a) Box shall be corrugated fibreboard at least 275-pound test. Tubes, when required, shall be of solid fibreboard at least 200-pound test, or of corrugated fibreboard of at least 275-pound test, with adjoining edges stitched, taped, or glued.

(b) Authorized gross weight: 65 pounds.

12. Closing for shipment. (a) The cover of telescoping type boxes shall be secured to the bottom by application of single strips of tape, not less than $\frac{1}{2}$ " wide, to the sides and in a vertical manner; two strips, one on each side for containers 18" in length or under; four strips, two on each side, minimum for containers over 18" in length. On boxes with divided covers the tapering shall start within 1" of the top-side score and extend to within 1" of the side-bottom score and in no case shall the stripes be less than 4" in length. On boxes with full depth covers the tape shall be at least 4" in length disposed equally on side and bottom.

(1) Tape used for closing must be pressure sensitive, filament reinforced. Tape backing shall have a minimum longitudinal tensile strength of 160 pounds per inch of width and a minimum elongation of 12 per cent at break. The tape shall have sufficient transverse strength to prevent raveling or separation of the filaments. Tape shall have an adhesion of 18 ounces per inch of width minimum when tested according to acceptable methods. Tape shall adhere immediately and firmly to fibreboard surface when applied with hand pressure in the temperature range of 0° to 120° F. No solvent or heat shall be necessary to activate the adhesive. The tape must be manufactured of material which will not delaminate or separate when submerged in water for 72 hours and which will not show any delamination or bleeding up to 160° F. and which will not lose its strength, delaminate or become brittle at 0° F.

(2) Water activated tapes are authorized when approved by the Bureau of Explosives.

(3) Other tape equal in efficiency and capable of withstanding drop and drum tests prescribed in para. 16 are authorized.

(b) For 1-piece or 3-piece type boxes as prescribed in para. 8(a) (3) by coating with adhesive at least 50 per cent of the entire contact surface of the closing flaps or by one of the following methods:

(1) By stitching at $2\frac{1}{2}$ " intervals along all seams (one 5" space allowed when necessary to permit use of stitching device).

(2) By not less than three stripes of paper tape having a minimum width of 2". Paper tape must be coated with glue, be of 2 sheets Kraft paper laminated with asphaltic or resin combined with synthetic, glass, or natural fibers satisfactorily dispersed therein, and at least equal to that prescribed in para. 6(a). One strip to be applied approximately equal distance across the top face of box over the seam, formed by abutting or overlapping outer flaps and extended onto

the side panels a minimum distance of 1" beyond the top score line. The two other strips shall be placed parallel and approximately equal distance over the joint formed by the top flaps and the side; each strip shall cover a minimum of 30 per cent of the centre part of this joint.

(c) In addition to the method prescribed in para. (a), boxes authorized by para. 8(a) (1) may be closed by securing the upper and lower sections of the container together by application of one single strip of tape not less than 1" wide, exclusive of manufacturer's joint, disposed entirely around the perimeter of the container and spaced approximately equally distant over each portion of the container at the seam of abutting covers. The ends of the tape around the perimeter of the container must overlap $1\frac{1}{2}$ " minimum. The tape shall be pressure sensitive, paper backed. The basic weight of the paper shall be not less than 70 pounds per ream after sizing and coating. Longitudinal tensile strength shall be not less than 50 pounds per inch of width and the latitudinal strength shall be not less than 11 pounds per inch of width.

13. Marking. (a) On each container. Symbol in rectangle as follows:

BTC—12H**

(1) Stars to be repalced by authorized gross weight (for example B.T.C.—12H65). This mark shall be understood to certify that the container complies with all specification requirements.

(2) Name and address of plant making the container; symbol (letters) authorized if recorded with the Bureau of Explosives. This mark to be located just above or below the mark specified in paragraph (a) of this section.

(3) Size of markings. At least $\frac{1}{2}$ " high.

14. Special tests. (a) By whom and when. By or for each plant making the boxes; at beginning of manufacture and at six-month intervals thereafter; on largest size, by weight, above and below 35 pounds gross. Report of results, with all pertinent data, to be maintained on file for one year; copy to be filed with the Bureau of Explosives.

15. Material. (a) Box material must comply with requirements of paras. 3, 4, 7, 11 and the following:

(b) Box material must test strength and moisture content not over 30 per cent as follows:

(1) Box material must test at least 200 pounds per square inch immediately after exposure for 3 days to 90 per cent relative humidity of not less than 70° nor more than 75° F..

(2) Box material must test at least 100 pounds per square inch immediately after it has been in contact with water for 3 hours under 3" head at not less than 70° nor more than 75° F.

16. Completed container. (a) Samples must pass the following immediately after exposure for 2 weeks to 90 per cent relative humidity at not less than 70° F. nor more than 75° F.; loaded containers shall contain dummy contents of shape and weight of the expected contents, and shall be closed in the same manner as for shipment:

(1) Three loaded samples to be tested. Each must withstand 200 drops in standard 7-foot revolving test drum with pointed hazard in place, without spilling any contents.

(2) Three loaded samples to be tested. Each must withstand end to end pressure of at least 500 pounds without deflection of over $1\frac{1}{2}$ ".

(3) Three empty samples to be tested. Each must withstand top to bottom pressure of at least 500 pounds without deflection of $\frac{1}{2}$ ".

HUGH WARDROPE,
Assistant Chief Commissioner.

MAY 4, 1955.

Circular No. 276

PROTECTION INSTALLED IN ACCORDANCE WITH

GENERAL ORDER No. 811

When installation of crossing protection is to be made under an Order of the Board in accordance with General Order No. 811, detailed location plans shall be submitted to the authority having jurisdiction over the highway for its approval as to location of the protection in relation to the highway and railway before such plans are submitted to the Board for approval. The plan shall show the distance in feet from the clearance of the protective device to the nearest edge of the travelled portion of the highway, and to the gauge side of the nearest rail of the track protected by such crossing signal.

BY ORDER OF THE BOARD,

E. R. HOPKINS,
Secretary, B.T.C.

AUGUST 4, 1955.

Circular Letter No. 277

File No. 11026—re RAILWAY GRADE CROSSING FUND.

DEAR SIR:

A number of enquiries have been received with reference to crossing projects which were ordered or authorized by the Board, but which were not in the opinion of the Board completed and paid for in full prior to June 28, 1955.

The Board has accordingly given extended consideration to the policy to be adopted in the exercise of the discretion vested in it by subsection (2) of section 3 of the Act to amend the Railway Act which was given the Royal Assent on the above-mentioned date. The new subsection (7) of section 265 of the Railway Act reads as follows:

“(7) Where the whole of any work ordered or authorized by the Board prior to the date of the coming into force of this subsection in respect of any one crossing at rail level was, in the opinion of the Board, completed prior to that date and the amount to be applied thereto out of The Railway Grade Crossing Fund was determined by the Board and paid in full prior to that date, no additional amount shall be applied by the Board out of the Fund towards the cost of that work, and where any work so ordered or authorized was, in the opinion of the Board, only partially completed prior to that date or was wholly completed but the amount to be applied thereto out of the Fund was not determined by the Board and paid in full prior to that date, the amount that may be applied by the Board in accordance with “this section towards the cost of the whole of that work is such amount, not exceeding the lesser of the amounts mentioned in paragraph (a) of subsection (2), as the Board in its discretion determines.”

Paragraph (a) of subsection (2) referred to in the above-mentioned subsection, reads as follows:

“(a) in the case of a crossing at rail level, sixty per cent of such cost or three hundred thousand dollars, whichever is the lesser, and”

In considering the manner in which and the extent to which it should exercise the discretion vested in it by the above-quoted subsection, the Board had particular regard to the purpose underlying the augmented Grade Crossing Fund. The Board felt that the main object was the maximum promotion of the public safety; that is, the establishment of the most effective safety measures at the greatest number of crossings.

The conclusion was accordingly reached that the amount to be devoted to projects qualifying under subsection (7) should be dependent on the amount required in respect of new projects ordered or authorized by the Board subsequent to June 28, 1955.

It is of course not practicable, so soon after the enactment of the amending legislation, to predict with accuracy the amount of money, if any, which will remain in the Fund after all the required commitments have been made in respect of the new projects.

The Board, therefore, will before the end of the present fiscal year, review the position of the Fund with a view to determining the manner in which and the extent to which any remaining balance should be utilized in respect of applications filed with the Board seeking an increased contribution from the fund towards projects qualifying therefor under subsection (7).

In the meantime, the Board will receive and place on file any applications received with respect to increased contributions toward these prior projects in anticipation of the final review which will take place in January or February, 1956.

Yours very truly,

C. W. RUMP,
Acting Secretary, B.T.C.

DECEMBER 14, 1955.

Circular Letter No. 278

DEAR SIR:

General Order No. 361 dated March 15th, 1922, requires that all railway companies subject to the Board's jurisdiction report to the Board, accidents occurring on the railway attended with personal injury. This order also provides any interruptions to normal railway operations caused by damage to bridges, culverts, viaducts or tunnels also be reported to the Board.

The failure of the Board to receive particulars of accidents occurring at public highway crossings as well as accidents involving train collisions, derailments, etc., where no personal injury is involved, is the cause of considerable concern to the Board because of the lack of complete statistics involving the accident history of a particular public crossing or the accident ratio relating to other specific types of train accidents.

In order to overcome this inherent weakness in the system of reporting accidents to the Board some consideration has been given to the proposed revision of General Order No. 361. However, as this regulation has otherwise stood the test of time it appears unnecessary to completely revise the basic requirements with respect to the reporting of accidents to the Board.

Under the circumstances all railway companies subject to the Board's jurisdiction are hereby required, effective January 1st, 1956, to extend the present system of reporting accidents to include all accidents involving train operation irrespective of whether or not such accidents are attended by personal injury.

Rather than stipulating the specific types of accidents in connection with which the Board might require a report from the railway companies concerned, it seems desirable to permit the railway companies to follow the same practice which is now in existence, based on the requirements of General Order No. 361, with the simple exception of including accidents which are not attended by personal injury.

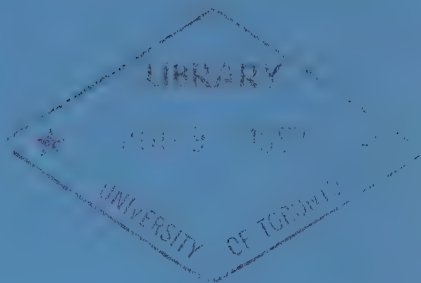
Yours very truly,

C. W. RUMP,
Acting Secretary,

2A1
A 86
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CANADA



FIFTY-SECOND REPORT
of
**THE BOARD OF TRANSPORT
COMMISSIONERS FOR CANADA**

FOR THE YEAR ENDED
DECEMBER 31
1956

EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1957



CANADA

FIFTY-SECOND REPORT

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THE BOARD OF TRANSPORT COMMISSIONERS
FOR CANADA

HON. JUSTICE JOHN D. KEARNEY, *Chief Commissioner,*

W. H. M. WARDROPE, *Assistant Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

L. J. KNOWLES, *Commissioner.*

C. W. RUMP
Secretary.

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R E P O R T
of the
BOARD OF TRANSPORT COMMISSIONERS
FOR CANADA

To the Governor in Council:

Pursuant to Section 31 of the Railway Act, Chapter 234, R. S. 1952, the Board of Transport Commissioners for Canada has the honour to submit its Fifty-Second Report for the year ended December 31, 1956.

APPLICATIONS SUBMITTED TO THE BOARD

During the year 2161 applications were submitted to the Board under the provisions of the Railway Act, the Transport Act, the Maritime Freight Rates Act, the Oil or Gas Pipe Lines Act, and other legislation under the Board's jurisdiction.

THE BOARD AND ITS ADMINISTRATION

The Board of Transport Commissioners for Canada was first established (then as the Board of Railway Commissioners) on February 1, 1904, pursuant to the Railway Act of 1903.

In subsequent years the Board's major jurisdiction was extended through the passage of other legislation to express companies, telegraph and telephone companies, and international bridges and tunnels; in 1938 to the licensing and regulation of rates of ships on certain inland waters of Canada. In 1949 its jurisdiction was further extended to cover oil and gas pipe lines of companies having authority under special acts of Parliament to construct or operate such pipe lines.

The Board's jurisdiction over railways is, in general, over the construction, maintenance, operation and rates of railways that are within the legislative authority of the Parliament of Canada. Included in this jurisdiction are United States railways in Canada.

The Board's approval must be obtained for route maps and plans, profiles and books of reference of railways, for highway crossings, for the opening of railways for traffic, for the abandonment of railway lines, closing of stations and numerous other things.

The public safety in operation of railways is a primary concern of the Board, and its staff makes inspections of crossings, bridges, track and structures, safety and protective devices, car equipment, motive power boilers, handling and storage of explosives and dangerous articles, signals, interlocking plants, and other railway facilities.

The Board may make orders and regulations in respect of operation and equipment of trains and "generally providing for the protection of property, and the protection, safety, accommodation and comfort of the public, and of

the employees of the company, in the running and operating of trains and the speed thereof, or the use of engines by the company on or in connection with the railway”.

While the Board's powers over construction, maintenance and operation are wide, it does not have jurisdiction over railway wages or negotiation of wage agreements, nor the power to exercise what are strictly the functions of railway management.

The Board is a regulative, administrative and judicial body. By statute it is declared to be a court of record with all the powers usually attributed to a court with respect to the adducing of evidence, enforcement of its orders, issuing of subpoenas to witnesses and determines its own rules of practice.

Although the Board is an independent Commission there is provision for appeal from its orders and decisions to the Supreme Court of Canada, which is Canada's highest court, and also to the Governor in Council. Apart from these appeals, no order or decision of the Board may be questioned or reviewed, restrained or removed by prohibition, injunction or any other process or proceeding of any court.

The appeal to the Supreme Court of Canada may be only on a question of law or jurisdiction, not on a question of fact, and may not be made without leave of a judge of that court.

The Board consists of six members appointed by the Governor in Council, each of whom holds office for a period of ten years from the date of his appointment, and on the expiration of his first or subsequent term of office is, if not disqualified by age, eligible for reappointment for a further period of ten years. A Commissioner ceases to hold office upon reaching the age of 75 years. A list of persons who have served as members of the Board since its establishment in 1904 will be found in Appendix “A” to this report.

In addition to its Administrative and Legal Branches, the Board is composed of five technical departments, namely, Traffic, Engineering, Operating, Transportation Economics and Accounts and Cost Finding Branches. Summaries of the activities of these Branches during the year 1956 are contained in Appendices to this report.

CHANGES IN PERSONNEL OF THE BOARD

At the close of the calendar year 1956, the resignation of the Honourable, Mr. Justice J. D. Kearney, on account of ill health, as the Board's Chief Commissioner, was accepted by the Governor in Council, and Order in Council P.C. 1956-1713 of November 20, 1956, accepting his resignation also provided for the appointment of his successor as Chief Commissioner, Mr. C. D. Shepard, Q.C., of the City of Winnipeg, Manitoba, all effective January 15, 1957.

Also as of December 31, 1956, the appointment of Mr. O. A. Matthews as part time Financial and Economic Consultant to the Board was terminated; and by Order in Council P.C. 1956-36/1803, of December 5, 1956, the name of Mr. A. V. Harris, a partner in the firm of Riddell, Stead, Graham and Hutchison, Chartered Accountants, Montreal, P.Q., was substituted for that of Mr. L. P. Kent, of the same firm, who was appointed Accounting Advisor to the Board on November 22, 1951.

PUBLIC SITTINGS OF THE BOARD

During the year covered by the period from January 1, 1956, to December 31, 1956, the Board held 35 public sittings at which 44 cases were heard. The number of public sittings held in the various provinces was as follows:

Province	Number
Ontario.....	24
Quebec.....	7
Manitoba.....	2
Saskatchewan.....	0
Alberta.....	0
British Columbia.....	2
Nova Scotia.....	0
New Brunswick.....	0
Prince Edward Island.....	0
Newfoundland.....	0
Total.....	35

LIST OF APPLICATIONS HEARD AT PUBLIC HEARINGS OF THE BOARD FOR THE YEAR ENDED DECEMBER 31, 1956

1. In the matter of the application of the City of Port Arthur, Ontario, for an Order of the Board authorizing the construction of an overhead bridge at Sixth Avenue, in the City of Port Arthur, over the tracks of the C.N.R. and C.P.R. to eliminate the level crossing over the said tracks on Second Avenue and apportioning the cost of the said construction between the interested parties after a grant is made from the Railway Grade Crossing Fund.

File No. 45493

2. In the matter of the application of the British Columbia Telephone Company under the provisions of ch. 66 of the Statutes of Canada 6-7 Geo. V, as amended by ch. 36 of 4-5 Geo. VI, ch. 86 of 11 Geo. VI and ch. 85 of 15 Geo. VI, for an Order approving of the amount, terms and conditions of the issue and sale or other disposition of a total number of ordinary shares of its capital stock not to exceed two hundred thousand (200,000) shares of a par value of \$25.00 each.

File No. 29885.13

3. In the matter of the application of the Toronto Transit Commission, under sections 37, 39, 52 and 262 of the Railway Act, for an Order to apportion the cost of maintaining the subway on Avenue Road under the tracks of the Canadian Pacific Railway Company, in the City of Toronto, Ontario, so as to relieve the said Commission from payment of maintenance as directed by Order No. 65147, dated August 8, 1944.

File No. 12021.70

4. In the matter of the application of the Toronto Transit Commission, under sections 37, 39, 52 and 262 of the Railway Act, for an Order to re-apportion the cost of maintaining the subway on Yonge Street under the tracks of the Canadian Pacific Railway Company, North Toronto, in the City of Toronto, Ontario, so as to relieve the said Commission from payment of maintenance as directed by Order No. 65145, dated August 8, 1944.

File No. 9437.153

5. In the matter of further consideration of the application of the Corporation of the City of Toronto, Ontario, under sections 39, 260, 262 and such other appropriate sections of the Railway Act, ch. 234, R.S.C. 1952, for an Order requiring the C.P.R. Co. to proceed with the grade separation on Symington Avenue, Toronto, under the tracks of the C.P.R.'s North Toronto Subdivision as provided in Order of the Board No. 35037, dated May 9, 1924, and for an Order apportioning the cost of the work between the various parties interested and affected by the Order for construction, subject to a contribution from the Railway Grade Crossing Fund.

File No. 9437.1271

6. In the matter of further consideration of the application of the City of Toronto, Ontario, requesting under sections 39, 257 and 259 of the Railway Act, an Order of the Board directing the Canadian National Railways to construct a subway under the tracks of their Oshawa Subdivision Pape Avenue, Toronto, apportioning the cost of the work between the interested parties and authorizing a grant from the Railway Grade Crossing Fund towards the said cost.

File No. 9437.971

7. In the matter of the application of the Municipality of Metropolitan Toronto, under sections 39, 260 and 262 and 265 of the Railway Act, for an Order of the Board authorizing the construction of a subway to carry Bloor Street under the tracks of the Canadian Pacific Railway Company in the Township of Etobicoke in accordance with the plan and profile attached to the application; granting a contribution towards the cost of construction of the said subway from the Railway Grade Crossing Fund; and apportioning the remainder of the cost of construction and the cost of maintenance between the interested parties.

File No. 26727.101

8. In the matter of further consideration of the application of the City of Toronto, Ontario, requesting under sections 39, 257 and 259 of the Railway Act an Order of the Board directing the Canadian National Railways to construct a subway under the tracks of their Oshawa Subdivision at Greenwood Avenue, Toronto, apportioning the cost of the work between the interested parties and authorizing a grant from the Railway Grade Crossing Fund towards the said cost.

File No. 1682

9. In the matter of the joint application of the Township of Etobicoke and the Municipality of Metropolitan Toronto for an Order authorizing a grade separation at Royal York Road, Dundas Street, and the Canadian Pacific Railway and apportioning the cost of the project between the interested parties.

Files Nos. 9437.105

26727.159

10. In the matter of Order No. 87102, dated October 5th, 1955, and the application of Canadian Pacific Railway Company for authority to remove the station agent and appoint a caretaker at Griswold, Manitoba

File No. 4205.1377

11. In the matter of the application of the Canadian Pacific Railway Company, as lessee exercising the franchises of the Nakusp and Slocan Railway Company and of the Kaslo and Slocan Railway Company, for an Order granting it leave to abandon the operation of that portion of the line known as the Kaslo Subdivision of Canadian Pacific Railway Company between Kaslo and Denver City, including the Sandon Branch between Parapet and Sandon, all in British Columbia.

File No. 39309.28

12. In the matter of the application of The Railway Association of Canada on behalf of its member companies for an Order authorizing the publication of a scale of local mileage rates and rates related thereto on grain and grain products within Western Canada as set out in Appendix 'B' attached to the application.

File No. 46921 Part 2

13. In the matter of the General Freight Rates Investigation directed by Order in Council P.C. 1487, dated April 7, 1948, (Equalization Case) Part 2—Commodity Mileage Scales—Grain and Grain Products (Scale No. 7), and the approximate increase of 10% proposed in the Board's Judgment dated August 31, 1955,

File No. 47828.3

14. In the matter of the complaints of the City of Vancouver and the Corporation of the District of Surrey, Cloverdale, B.C., respecting the rates on Grain and Grain Products from the Prairie Provinces to British Columbia for domestic consumption, versus the rates east-bound to Port Arthur and Fort William, Ontario.

File No. 24271.9

15. In the matter of the application of the Minister of Agriculture of the Province of British Columbia for an Order directing the Canadian Pacific Railway Company, the Esquimalt and Nanaimo Railway Company, the Canadian National Railway Company, the Northern Alberta Railway Company and other member companies of the Railway Association of Canada to reduce their tolls for the carriage of grain and grain products to and from all points within the Province of British Columbia when the said grain or grain products are to be used for consumption within the said Province.

File No. 24271.10

16. In the matter of the application of Trans-Canada Pipe Lines Limited for an extension until November 1, 1956, of the period fixed in Order No. 84220, as subsequently extended to April 30, 1956, for satisfying the Board in respect of financing and licences.

File No. 45371.20.2

17. In the matter of the application of the Canadian National Railways for authority to substitute automatically controlled flashing lights and gates for the existing manually controlled gates at the crossing of their railway and Lindsay, Brock and Heriot Streets, in the City of

Drummondville, P.Q.; and consideration of the request of the City to have the grades separated at the said crossings and also at the crossings of St. Joseph Boulevard and St. Leon Street.

Files No. 38681.26

26782.520

26782.45

18. In the matter of the application of the Township of Crowland for a grant from the Railway Grade Crossing Fund towards the cost of widening the crossing of the Michigan Central Railway and Carl's Road, closing Cambridge Road crossing and diverting Cambridge Road to Carl's Road, east of Welland Ontario; and consideration of the apportionment of the remainder of the said cost.

File No. 26842.153

19. In the matter of the application of the Municipal Councils for the Village of Deux Rivieres and the Parish of St. Stanislas de la Riviere des Envies for the restoration of passenger train service at St. Stanislas Station, P.Q., by means of the construction of a short line which would connect the present C.N.R. line which passes at St. Stanislas Station and the C.N.R. Abitibi line.

File No. 21464

20. In the matter of the application of the Department of Roads of the Province of Quebec requesting a contribution from The Railway Grade Crossing Fund and from the Canadian National Railways towards the cost of construction of the diversion of Highway No. 51, in the Parish of St-Eleuthere, P.Q., whereby the public crossing at mileage 67.5 Glendyne Subdivision, Canadian National Railways, will be closed and the traffic at the crossing at mileage 63.86 on the same subdivision will be greatly reduced.

Files Nos. 36202.1

37647.2

21. In the matter of Agreed Charge CTC (AC) No. 153 dated 10th April, 1956, and issued by the Canadian Freight Association effective May 1st, 1956, between Canadian National Railways, Canadian Pacific Railway Company and others and The Canada Starch Company Limited and St. Lawrence Starch Company Limited on Corn Products from Cardinal and Port Credit Ontario to B.C. points

and

In the matter of the application of Canada Steamship Lines Limited for an Order directing and authorizing its participation therein.

File No. 40994

22. In the matter of Order of the Board No. 88145, dated February 20, 1956, as amended by Order No. 88309, dated March 5, 1956, suspending certain tariff schedules applicable on lumber and related articles.

File No. 26901.62.7

23. In the matter of application by the Hydro-Electric Power Commission of Ontario, and the Canadian National Railways Company, pursuant to Section 181, and all other relevant provisions of the Railway Act, and other legislation, for the approval and sanction of a deviation,

change, and alteration of that portion of the railway of the Canadian National Railways Company, located between mile 65.70 and mile 105.19, Cornwall Subdivision;

AND

Under Sections 258, 259, and all other relevant sections of the Railway Act, for leave to construct the deviated line of railway across the highway shown on the list attached to the said application.

File No. 47728.16

24. In the matter of the application of the Province of Alberta pursuant to the provisions of section 328 of the Railway Act and all other relevant sections thereof for the disallowance of the freight rates on cement, carloads from Exshaw, Alberta, to destinations in the Province of Alberta published by the Canadian Pacific Railway in its Tariff W. 712-C, CTC No. W. 4075:

AND

In the matter of the application of the Inland Cement Company Limited for an Order under Section 328 and other relevant sections of the Railway Act disallowing the freight rate on cement clinker, carloads in bulk in open top cars for manufacturing and reshipment from Exshaw, Alberta, to Clover Bar, Alberta, per 100 lbs. minimum weight 90% of capacity of car, but not less than 100,000 lbs.—12 cents, this rate made effective March 24th, 1956, by Item 137, Supplement 111, Canadian Pacific Railway Tariff W. 712-C:

AND

In the matter of the interventions of the Province of Saskatchewan and Saskatchewan Cement Corporation Limited for a relief of somewhat a similar character:

File No. 29385.9

25. In the matter of the application of Interprovincial Pipe Line Company, under sections 11 and 12 of The Pipe Lines Act, for an Order granting them leave to construct a pipe line, consisting of one or more lines of pipe, for the transportation of oil from a point in the vicinity of the City of Sarnia to a point in the vicinity of the Village of Port Credit, Ontario.

File No. 45371.2.46

26. Application as amended, of the Vancouver Merchants' Exchange Limited for an Order directing that flaxseed rates eastbound to Fort William and westbound to the Pacific Coast for export should be equalized pursuant to Section 336 of the Railway Act since they are not related to the rates of United States ports;

or, in the alternative, if flaxseed is a "grain" within the meaning of the Crow's Nest Pass Agreement,

Application for an Order under Section 328 (6) of the Railway Act for the establishment by the C.N.R. and the C.P.R. of export rates on flaxseed from Prairie points to various Pacific Coast ports on the basis of the grain rates from Prairie points to the said Pacific Coast ports as ordered by the Board by General Order No. 448.

File No. 30637.1

27. In the matter of the application of the Canadian National Railways for an Order

(a) authorizing the installation of automatically controlled short arm gates with flashing light signals and bell, in lieu of the present mechanical gates, at the crossing of Thames St., Ingersoll, Ontario, and the railway, mileage 58.89 Dundas Subdivision;

(b) granting a contribution of sixty per cent of the cost of installation of the new protection from The Railway Grade Crossing Fund; and

(c) determining the apportionment of the remainder of the cost of installation and of the cost of maintenance of the said protection.

File No. 5087

28. In the matter of Application of Northwest Line Elevators Association, on behalf of its member companies pursuant to the provisions of the Railway Act of Canada, being Chapter 234 of the Revised Statutes of Canada, 1954, and amendments thereto, for an Order under Section 328 and other relevant sections of the said act; disallowing Canadian Car Demurrage Tariff C.T.C. No. 5 to the extent that said tariff might be construed as including demurrage charges on bulk grain unloaded into public and semi-public terminal elevators in Western Canada.

File No. 1700.397

29. In the matter of the application of Peace River Transmission Company Limited, under sections 11 and 12 and other relevant sections of the Pipe Lines Act, for an Order granting it leave to construct a pipe line, for the transportation of gas, from a point in the vicinity of the area known as the South Pouce Coupe Gas Field, in the Province of Alberta, to a point in the vicinity of the Village of Dawson Creek, in the Province of British Columbia.

File No. 45371.30

30. In the matter of the application of British Columbia Toll Highways and Bridges Authority for an Order under the Railway Act for leave to construct a highway across the railway of The Burrard Inlet Tunnel And Bridge Company, leased by indenture to Canadian National Railway Company and The Canadian Northern Railway Company, at mile 4.93 Burrard Harbour Line of Canadian National Railways, as shown on Drawings 1459-3A and 1459-5 filed with the application.

File No. 15732.12

31. In the matter of the application of Westspur Pipe Line Company for an Order granting leave to it to construct a pipe line for the transportation of crude oil and other liquid and gaseous hydrocarbons, from a point in the vicinity of Ralph and Halbrite, in the Province of Saskatchewan, to its existing Midale Terminal in Saskatchewan, as an extension of its company pipe line, together with such pipe lines and other facilities in connection therewith as may be required for the purpose of gathering, transporting and delivering crude oil and other liquid and gaseous hydrocarbons along and in the vicinity of the pipe line route.

File No. 45371.27.14

32. In the matter of the application of the Canadian National Railways for authority to construct an industrial lead, to serve Associated Quarries and Construction Limited, across Highway No. 24A in the Town of Paris, in the Province of Ontario, as shown on Plan No. F-851-H, dated February 3rd, 1956, and No. F-851-D, dated November 12, 1955.

File No. 29679.3

33. In the matter of the proposal of the Canadian National Railways to install automatically controlled short arm gates with flashing lights and bell in lieu of the present manually operated gates at the crossing of Victoria Avenue and the Canadian National Railways, in the City of St. Lambert, P.Q.

File No. 9437.920

34. In the matter of the application of the Corporation for the Parish of Notre Dame des Anges de Montauban for an Order of the Board directing the Canadian National Railways to widen the public road located along their track on Lot 6, Range 6, northeast of Montauban Township, P.Q.

File No. 9558.90

35. In the matter of the application of Trans-Canada Pipe Lines Limited for leave to construct its proposed pipe line from a point on the Alberta-Saskatchewan border to Ste. Anne de Bellevue, in the Province of Quebec, and other points, as authorized by Order No. 84220, dated July 24, 1954, and other Orders issued herein, and in respect particularly of the condition that the Applicant satisfy the Board that satisfactory arrangements have been completed for financing the construction of the said line.

File No. 45371.20.2

36. In the matter of the application of the City of Chicoutimi requesting that the granting of the application of The Bell Telephone Company of Canada for leave to exercise its statutory powers to construct, erect and maintain its lines of telephone along the sides and across or under certain public highways within the corporate limits and under the municipal jurisdiction of the said City be subject to certain terms and conditions.

File No. 44484.21

37. In the matter of the application of the Chamber of commerce of Ste. Foy requesting the extension by the express companies of the free cartage service to the City of Ste. Foy, P.Q.

File No. 4214.112.1

38. In the matter of the proposal of the Canadian National Railways to discontinue the operation of Passenger Trains 171 and 172 between Quebec and St. Raymond.

(File No. 27563.95)

39. In the matter of the apportionment of the cost of construction and maintenance of the overhead bridge authorized to be constructed at the intersection of Highway No. 15 and the right of way of the

Canadian National Railways in the Municipality of the Parish of Ste-Anne-de-Beaupre, County of Montmorency, Province of Quebec, in pursuance of Order No. 89099, dated June 25th, 1956.

(File No. 48172)

40. In the matter of the application of the Department of Roads of Quebec for an Order authorizing the elimination, by means of a subway, of the level crossing of Highway No. 2 and the railway of the Canadian National Railways, mileage 7.70 Bridge Subdivision, in the City of Ste. Foy, P.Q., and providing for a grant from the Railway Grade Crossing Fund and for the apportionment of the remainder of the cost of the said work.

(File No. 26782.44)

41. In the matter of the application of The Bonaventure and Gaspé Telephone Company, Limited, pursuant to the provisions of Bill P6 of the Senate of Canada, 2nd Session, 22nd Parliament, 3-4 Elizabeth II, 1955, for approval of the issue, sale or other disposition of not more than 26,288 shares of its capital stock at such price and upon such terms and conditions as The Board of Transport Commissioners for Canada will approve.

(File No. 38503.1)

42. In the matter of the application of the Westspur Pipe Line Company, hereinafter called the "Applicant", for an Order granting leave to it to construct a pipe line for the transportation of crude oil and other liquid and gaseous hydrocarbons from a point in the vicinity of the Florence field in the Province of Saskatchewan to Westspur Pipe Line Company's existing Alida Terminal in the Province of Saskatchewan, as an extension of the Company's existing pipe line system, together with such pipe lines and other facilities in connection therewith as may be required for the purpose of gathering, transporting and delivering crude oil and other liquid and gaseous hydrocarbons along and in the vicinity of the pipe line route.

(File No. 45371.27.15)

43. In the matter of the application of the New York Central Railroad Company, lessee of Ottawa and New York Railway Company, and the said Ottawa and New York Railway Company, under section 168 of the Railway Act and all other relevant statutory provisions, for an Order authorizing the New York Central Railroad Company to abandon its operation of the line of railway of the Ottawa and New York Railway Company and authorizing Ottawa and New York Railway Company to abandon its line of railway which extends from Ottawa to United States—Canada boundary near Cornwall, Ontario.

(File No. 40892.4)

44. In the matter of the application of the Corporation of the City of London and the London Railway Commission for an Order granting permission to discontinue passenger service in its entirety between London and Port Stanley, in the Province of Ontario.

(File No. 27563.435)

LIST OF APPEALS TO THE GOVERNOR-IN-COUNCIL
FEBRUARY 1, 1904 to DECEMBER 31, 1956

File No.	Subject	Decision
389	Bay of Quinte Ry. Crossing C.P.R. Tweed, Ont.....	Allowed
1455	James Bay Ry. Co. v G.T.R. Co. Crossing near Beaverton, Ontario....	Dismissed
1781	G.T.R. Co. v City of Chatham, Ont. Street Crossing.....	Dismissed
12992	Maniwaki Br., C.P.R. Train Service from Ottawa, Ontario.....	Ref. Back
2030	Tariffs of certain Yukon Railways.....	Dismissed
17716	C.P.R. Co. Longue Pointe Spur, Maisonneuve, Que.....	Dismissed
18787	South Hazelton Townsite v G.R.T. Co.....	Ref. Back
3452.30	J. T. Rochester v G.T.R.P. Co. re Cameron Bay.....	Dismissed
12912	Park Ave. Subway, Saint Louis, P.Q.....	Dismissed
17740	Lambton to Weston Spur and C.P.R. Co.....	Abandoned
C. 3322	Toronto Viaduct.....	Dismissed
16177	C.P.R. Co. v Mountain Lumber Manufacturers' Assoc, re Lumber rates.	Withdrawn
19024	C. Miller of Toronto v G.T.P.R. Co. re Station at Prince George, B.C.	Dismissed
17716.10	C.P.R. Co. v Town of Maisonneuve, P.Q. Highway Crossing.....	Dismissed
22681.25	City of Montreal, Que. v C.N.R. Co. Siding across Stadacona and Marlboro Streets, Montreal, Quebec.....	Abandoned
21418	City of Prince George, B.C. re Location of G.T.P.R. Co. Station between Oak and Ash Streets.....	Dismissed
26169	G.T.P.R. & C.N.R. Cos. re Interswitching at Eastern Public Cattle Market, Montreal, Quebec.....	Abandoned
21660	C.N.O.R. Co. v Twp. of Loughboro, Ontario.....	Dismissed
17040	C.P.R. Co. re Lambton to Weston Spur, 2nd Appeal.....	Ref. Back
27693	City of Hamilton, Ont. v G.T.M. Co. re passenger service in N. & N. "Beh" between Hamilton and Burlington Beach and Town of Burling- ton, Ont.....	Abandoned
27840	Winnipeg B. of T. re 15% increase in Freight Rates.....	Dismissed
28493.3	Town of Lambert, P.Q. re increase in rates on M. & S.C. Ry.....	Dismissed
28230	City of Hamilton, Ont. re Kinnear Yard.....	Ref. back
12021.70	North Toronto Grade Separation.....	Dismissed
29040.2	National Dairy Council of Canada on behalf of Ice Cream Manufacturers, re classification of Ice Cream.....	Ref. back
C. 955	Proprietors' League of Montreal, P.Q. re increase in B.T. Co.'s rates....	Dismissed
30424	City of Windsor, Ont. against Order 30028, re C.P.R. Freight shed across Caron Ave., Windsor, Ontario.....	Dismissed
29996	City of Toronto, Ont. re General increase in Freight Rates.....	Ref. back
C. 955	City of Toronto, Ont. re Increase rates of B.T. Co.....	Ref. back
23092.2	C.N.R. re crossing Pointe aux Trembles Ry. at Pointe aux Trembles, P.Q.....	Ref. back
30380.13	National Dairy Council of Canada, re 20% increase in Cream rates.....	Ref. back
30390	City of Toronto, Ont. re Express rates.....	Dismissed

LIST OF APPEALS TO THE GOVERNOR-IN-COUNCIL
FEBRUARY 1, 1904 to DECEMBER 31, 1956—Continued

File No.	Subject	Decision
17112.27	Dominion Miller's Ass'n, of Canada re flour arbitraries over wheat for export.....	Dismissed
29040.2	National Dairy Council of Canada re Express Classification of Ice Cream.	Dismissed
30686.2	Province of Alberta and British Columbia re railway Tolls.....	Ref. back
30380.13	National Dairy Council of Canada, re 20% increase cream rates.....	Allowed
3023.16	N. St. C. & T. Ry. Co. re location of its line on Oak and Merritt Streets, Merriton, Ontario.....	Withdrawn
C. 955.71	The Govt. and Attorney General of Ontario, the Cities of Montreal, Toronto, Hamilton, Ottawa and Brantford and the Union of Can. Mun. from Order 38777 re Telephone rates.....	Dismissed
32812.1	Govts. of Alberta, Sask. and Man. re Crows Nest Pass rates.....	Allowed
9754.22	Can. Shippers' Traffic Bureau, re claim against G.T.R. Co. in matter of freight overcharge.....	Dismissed
30686.2	Govts. of Alta., Sask., re rates on grain and flour to the Pacific Coast for export.....	Ref. back
34123	United Farmers of B.C. Fraser Valley Dist. Council re freight rates on grain and grain products over C.P.R. and C.N.R.....	Dismissed
429.3	Consumers Glass Co. Ltd., Montreal, P.Q., re freight rates on glass bottles and jars.....	Dismissed
38316	Lakeside Milling Co. Ltd., Toronto, Ont. on behalf of itself and all other inland millers in Ont., re tariffs on grain and grain products.....	Abandoned
36800.1	Employees of M.C.R. Ry. Co. (N.Y.C.R.R. Co.) at Montrose, Ont. and other re alleged abandonment of the Montrose Yards.....	Dismissed
38625	Parish of N.D. du Bon Conseil P.Q. v C.N.R. re crossing of Mitchell Station; Matter referred to the Dept. of Railways and Canals on May 10, 1934.....	Lapsed
39310.9	Town of Nicolet, P.Q. and His Worship Mayor H. N. Biron of Nicolet, re abandonment of operation of that portion of the Nicolet Subd. of the C.N.R. between St. Leonard Jct. and Nicolet, P.Q.: Matter referred to the Dept. of Railways and Canals on October 13, 1936.....	Lapsed
24271.1	Prov. of B.C., the Fraser Valley Surrey Farms' Co-operative Ass'n and the Dist. "B" Farmers Institute of B.C. re reduction in freight rates on feed grain and mill feed.....	Dismissed
39309.5	Prov. of N.B. re abandonment of portion of N.B.S. Ry. (C.P.R. Co.) known as shore Line Subd. between Shore Line Jct. and Bonny River.	Dismissed
26901.62.3	Chishold Saw Mills Ltd. and the Edmonton Box and Shook Co., Edmonton, Alta., re rates on Lumber and Forest products from North Central Points in Alta. to Toronto, Ontario.....	Dismissed
39310.25	Prov. of N.S., the M. of the Co. of Annapolis, the Town of Middleton, N.S., the Town of Bridgetown, N. S. M. W. Graves & Son, Ltd., Bridge-town, N.S., J. R. Ricks & Sons and the United Fruit Cos. of N.S. Ltd., against order of the Board in the matter of Joint application of the C.N.R. and C.P.R. Co. for Abandonment of operation of the line of the C.N.R. between Middleton Jct. and Granville Centre, N.S. Matter referred to the Dept. of Transport, May 27, 1939.....	Lapsed
39310.38	Town of Renfrew, Ont. from Order No. 58759, approving the abandonment of a portion of the C.N.R. Renfrew Subd. between Arnprior and Eganville.....	Ref. back

LIST OF APPEALS TO THE GOVERNOR-IN-COUNCIL
FEBRUARY 1, 1904 to DECEMBER 31, 1956—*Concluded*

File No.	Subject	Decision
28420	Mun. between Montreal and Valleyfield and other interests concerned, that Order No. 62062, be rescinded or the suspension of the execution of such order until Sept. 1, 1942, in the matter of the application of the N.Y.C.R.R. for permission to discontinue trains Nos. 24, 25, 30, 31, 32 and 26, running between Malone and Valleyfield and Montreal.....	Ref. back
44482	An appeal from the Judgment and Order of the Board No. 70425, dated March 30, 1948, in the matter of the application of the Railway Ass'n of Canada, dated October 8, 1946, for an Order of the Board authorizing a general increase of 30% in the freight rates.....	Ref. back
45582.4	From Judgments and Orders of the Board Nos. 74034 and 74512, dated respectively, which Judgments and Orders together granted an increase of twenty percent in freight rates and certain increases in the rates on coal and coke.....	Dismissed
46920.2	The Maritime provinces and the provinces of Manitoba, Saskatchewan, Alberta and British Columbia, from the Judgment and Order of the Board, dated March 6, 1953, which authorized a general increase of 7% in freight rates.....	Dismissed
26825.144	The Ontario Department of Highways from Order of the Board No. 81573, dated June 15, 1953, which authorized the Canadian National Railways to construct an industrial spur across certain highways near Picton, Ontario.....	Dismissed
12758.120	Oakville Commuters' Association from the Judgment and Order of the Board dated August 4, 1954, re complaint against the Canadian National Railways in respect of alleged discrimination.....	Dismissed
22773.7	Township of Scarborough from the Board's Order No. 86534, dated July 7, 1955, which authorized Canadian National Railways to construct trackage across highways in Scarborough.....	Pending

SUMMARY

OF

APPEALS TO THE GOVERNOR-IN-COUNCIL
FEBRUARY 1, 1904, to DECEMBER 31, 1956

DISMISSED.....	31
ALLOWED.....	3
REFERRED BACK.....	14
WITHDRAWN, ABANDONED OR LAPSED.....	10
PENDING.....	1
TOTAL.....	59

TRANSPORT COMMISSIONERS FOR CANADA

LIST OF CASES APPEALED TO THE SUPREME COURT OF CANADA FROM
FEBRUARY 1, 1904 TO DECEMBER 31, 1955

File No.	Subject	Decision
643	Montreal Terminal Ry. Co. v Montreal St. Ry. Co. Pius IX Ave. Jurisdiction.....	Allowed
1492	James Bay Ry. Co. v G.T.R. Co. Crossing Belt Line Spur. Question of Law.....	Dismissed
1455	James Bay Ry. Co. v G.T.R. Co. Under crossing at point near Beaverton Ont. Twp. of Thorah, Ontario.....	Dismissed
383	Ottawa Electric Ry. Co. and City of Ottawa, Ont. v Canada Atlantic Ry. Co. Bank St. Subway, Ottawa, Ont. Question of law.....	Dismissed
1621	Toronto Ry. Co. re High level Bridge over Don Improvement and tracks of G.T.R. and C.P.R. Co., Toronto Ont. Question of jurisdiction.....	Dismissed
589	Toronto Union Station, A. R. Williams, Expropriation Jurisdiction.....	Dismissed
C.1680	Essex Terminal Ry. Co. and W. E. & L. S. R. Ry. Co. Crossing Twp. of Sandwich, Ont. Question of Law.....	Dismissed
C. 1309	Robinson v G.T.R. Ry. Co. Two-cent rate. Question of law.....	Dismissed
689	C.P.R. Co. v G.T.R. Co. Branch Line, London, Ontario, Jurisdiction...	Dismissed
1497	T. R. Robinson v C.N.R. Co. Spur at Winnipeg, Manitoba, Jurisdiction.	Dismissed
9627	Montreal St. Ry. Co. re rates, Mount Royal Ward. Jurisdiction.....	Allowed
C. 1419	Ontario Department of Agriculture v G.T.R. Co. re Station at Vineland, Ont. Jurisdiction.....	Dismissed
C. 3322	Toronto Viaduct, C.P.R. Co. Question of law.....	Dismissed
C. 4897	Fencing and cattle-guards Order 7474, Appeal of C.N.R. Co. Jurisdiction	Allowed
C. 4492 C. 3378	City of Toronto, Ont. v G.T.R. Co. and C.P.R. Co. Commutation rates Question of law.....	Withdrawn
13079	G.T.R. Co. and C.N.C.R. re spur in Scarboro Twp., Ont. Jurisdiction..	Dismissed
C. 3269	G.T.R. Co. v British American Oil Co. re spur Oil rates. Question of law..	Dismissed
1319	G.T.R. Co. v City of Fort William, Ont. re location. Jurisdiction.....	Dismissed
13065	N. St. C. and T. Ry. Co. Jurisdiction.....	Dismissed
18580	Clover Bar Coal Co. and W. Humberstone v G.T.R. Co. and the Clover Bar Sand & Gravel Co. Jurisdiction.....	Dismissed
12682	Regina Rates Case. Question of law.....	Dismissed
16963	G.T.P.R. Co. v British American Oil Companies. Jurisdiction.....	Dismissed
C. 3269	G.T.P.R. Co. v A. E. Purcell, Saskatoon, Sask. Jurisdiction.....	Dismissed
15530 15530.1	G.T.P.R. Co. & C.P.R. Co. v Canadian Oil Companies. Jurisdiction....	Dismissed
20062 27095	B.C. Ele. Ry. Co. v V. & E. Ry. Co. v City of Vancouver, B.C. Jurisdiction.....	Dismissed
1487	N.B. Chamber and W.E.C. Phair v C.P.R. Co. Jurisdiction.....	Allowed
18578	C.N.R. Co. v W. A. Taylor. Jurisdiction.....	Dismissed
19435	G.T.R. Co. v City of Edmonton, Alta. Question of law.....	Dismissed
14329.8	Montreal Tramways and M.P. & I. Ry. Co. v Lachine Jacques Cartier & Maisonneuve Ry. Co. Jurisdiction.....	Allowed

LIST OF CASES APPEALED TO THE SUPREME COURT OF CANADA FROM
FEBRUARY 1, 1904 TO DECEMBER 31, 1955.—*Continued*

File No.	Subject	Decision
23009	City of Hamilton, Ont. v T.H. & B. Ry. Co. Jurisdiction.....	Allowed
21428	G.T.R. Co. v Hepworth Silicon Pressed Brick Co. Question of law.....	Dismissed
12020.70 9437.153	Toronto Ry. Co. and City of Toronto, Ont. v A.P.R. Co. Law and jurisdiction.....	Dismissed
C. 3935	City of Edmonton, Alta. v E.D. & B.C. Ry. Co. Question of law.....	Dismissed
27524	G.T.R. Co. v Bourassa of Laprairie, Que. Law and jurisdiction.....	Withdrawn
13622	G.N.W. Tel. Co. re Gen. Order 162. Question of law.....	Abandoned
C. 3269	G.T.R. Co. v British American Oil Co. re spur oil rates. Question of law...	Dismissed
1319	G.T.P.R. Co. v City of Fort William, Ont. re location. Jurisdiction...	Dismissed
13065	N. St. C. and T. Ry. Co. Jurisdiction.....	Dismissed
18580	Clover Bar Coal Co. and W. Humberstone v G.T.R. Co. and the Clover Bar Sand & Gravel Co. Jurisdiction.....	Dismissed
12682	Regina Rates Case. Question of law.....	Dismissed
17963	G.T.P.R. Co. v British American Oil Companies. Jurisdiction.....	Dismissed
16171	Ingersoll Tel. Co. et al v B.T. Co. Question of law.....	Dismissed
C. 3269	G.T.P.R. Co. v A. E. Purcell, Saskatoon, Sask. Jurisdiction.....	Dismissed
15530	G.T.P.R. Co. & C.P.R. Co. v Canadian Oil Companies. Jurisdiction....	Dismissed
20062 27095	B.C. Elec. Ry. Co. v V. & E. Ry. Co. v City of Vancouver, B.C. Jurisdiction.....	Dismissed
1487	N.B. Chamber and W.E.C. Phair v C.P.R. Co. Jurisdiction.....	Allowed
18578	C.N.R. Co. v W. A. Taylor. Jurisdiction.....	Dismissed
19435	G.T.R. Co. v City of Edmonton, Alta. Question of law.....	Dismissed
14329.8	Montreal Tramways and M.P. & L. Ry. Co. v —Lachine Jacques Cartier & Maisonneuve Ry. Co. Jurisdiction.....	Allowed
23009	City of Hamilton, Ont. v T.H. & B. Ry. Co. Jurisdiction.....	Allowed
41428	G.T.R. Co. v Hepworth Silicon Pressed Brick Co. Question of law.....	Dismissed
12020.70 9437.153	Toronto Ry. Co. and City of Toronto, Ont. v A.P.R. Co. Law and jurisdiction.....	Dismissed
C. 3935	City of Edmonton, Alta. v E.D. & B.C. Ry. Co. Question of law.....	Dismissed
16171	Ingersoll Tel. Co. et al v B.T. Co. Question of law.....	Dismissed
27524	G.T.R. v Bourassa of Laprairie, Que. Law and jurisdiction.....	Withdrawn
13622	G.N.W. Tel. Co. re Gen. Order 162. Question of law.....	Abandoned
27840	Government of Man. and J. B. Ashdown Hardware Co. re 15% increase in rates. Jurisdiction.....	Abandoned
26981	C.P.R. Co. v Department of Public Works for Ontario crossing Twp. of Kirkpatrick. Question of law.....	Withdrawn
11118	E. & N. Ry. Co. Victoria Harbour Bridge. Jurisdiction.....	Abandoned
28439	Mn. of Burnaby, B.C. v B.C. Elec. Ry. Co. Communication rates. Jurisdiction.....	Abandoned

LIST OF CASES APPEALED TO THE SUPREME COURT OF CANADA FROM
FEBRUARY 1, 1904 TO DECEMBER 31, 1955—*Continued*

File No.	Subject	Decision
28950	City of Toronto v Toronto Terminal Ry. Co. re pipes under Bay, Scott and Yonge Streets Toronto, Ont. Question of law.....	Dismissed
C. 3578	Wagenast re Brampton Commutation Rates. Question of law.....	Dismissed
C. 2987	Ottawa Elec. Ry. Co. re rates. Jurisdiction.....	Dismissed
30381	V.V. & E. Ry. Co. v Vancouver Harbour Commissioners and C.N.R. re Order 31647. Jurisdiction.....	Dismissed
28140	C.P.R. Co. Overhead crossing, lots 6 and 7, Con. 1, Eston Twp. Ont....	Allowed
31531.1	Luscar Collieries Ltd. v N.S. McDonald and C.N.R. Jurisdiction.....	Allowed
32812.1	Governments of Alberta, Saskatchewan and Manitoba re Crows Nest Pass Rates.....	Allowed
34285	C.N.R. Co. re through rates via St. John and Ste. Rosalie, Gateways, Appeal allowed re movements through St. John and dismissed in respect of movements through Ste. Rosalie.....	Allowed (partly)
24822	Toronto Transportation Commission, re bridge over C.N.R. tracks at Main St., Toronto, Ontario.....	Dismissed
4000.3	Montreal Trams. Co. against Order 42501, as amended by Order 42773 Jurisdiction.....	Dismissed
16645.73	C.N.R. re opening for traffic portion of its lines Willington to Strathcona, Alta. Law and jurisdiction.....	Dismissed
6713.213	North Fraser Harbour Comm'rs from Order 42808. Jurisdiction.....	Allowed
9437.7	M.L.H. & P. Consolidated, B.T. Co. Montreal Trams. Co. and Montreal Trams. Comm. re subway at D'Argenson St., Montreal, Que. Question of law.....	Dismissed
9437.319.13	M.L.H. & P. Consolidated, B.T. Co. Montreal Trams. Co. and Montreal Trams. Comm. re St. Antoine St. Subway, Montreal Que. Question of law.....	Dismissed
9437.319.16	M.L.H. & P. Consolidated, B.T. Co. and City of Montreal re proposed line between Longue Pointe and Eastern Junction, Que. C.N.R. Question of law and jurisdiction.....	Dismissed
32453.11	B.T.C. re St. Clair Ave. Subway, Toronto, Ont. Law and jurisdiction...	Dismissed
20161	B.T.C. re grade separation, Hamilton Ont. Law and jurisdiction.....	Dismissed
C. 4704	C.E.A. and Ont. H. Elec. Comm. re rules for wires along and across Highways. Law and jurisdiction.....	Dismissed
34123.74	Govt. of Alberta re tariffs on grain and flour to Fort William, Westport and Armstrong and to Vancouver. Question of law.....	Dismissed
27929.40	P.M.R. and Lake Erie & Detroit River Ry. Co. from Order 45736. Jurisdiction.....	Allowed
37756	City of Toronto, Ont. re Eglinton Ave. Bridge in Village of Forest Hill, Ont. Jurisdiction.....	Allowed
26782.21	Quebec Ry. L. & P. Co. re Charlesbourg Road Subway. Law and jurisdiction.....	Dismissed
35594	City of Windsor, Ont. re Bridge over C.N.R. on Sandwich St., Walkerville, Ont. Jurisdiction.....	Dismissed
38702	C.P.R. Co. v C.N.R. against Order 50139 re agreement dated Jan. 29, 1929, Question of law.....	Dismissed
38856	Elizabeth Breg and Penn Coals Ltd. re compensation in respect of coal mines and minerals in and under right of way of N.A.R. Co.....	Dismissed

LIST OF CASES APPEALED TO THE SUPREME COURT OF CANADA FROM
FEBRUARY 1, 1904 TO DECEMBER 31, 1955.—*Continued*

File No.	Subject	Decision
17716	City of Montreal, P.Q. re removal by C.P.R. Co. of structures and works erected at certain streets of Montreal along proposed branch line through Prefontaine, Maisonneuve and Mercier never completed. Question of law.....	Dismissed
588.59	City of Toronto, Ont. re subway structures at Carlaw and Gerrard Sts. Jurisdiction.....	Dismissed
34822.40	Provinces of N.S. and N.B. and P.E.I., the Transp. Comm. of the Maritime B. of T. The Halifax B. of T., the St. John B. of T., the Perth Co. B. of T., the Victoria Co. B. of T., Association Ship of N.B., the P.E.I. Potato Growers' Assoc., Porter Bros. Ltd., and Austin Scales, re rates on potatoes. Law and jurisdiction.....	Dismissed
9437.319.46	C.N.R. v M.L.H. & P. Consolidated and the B.T.C. re Montreal Terminals. Question of law.....	Dismissed
37615	B.T. Co. and C.N.R. v Corp. of the Town of N. Toronto and the Corp. of Twp. of Etobicoke, Ont. re subway at 18th St. N. Toronto. Law and jurisdiction.....	Dismissed
26765.152	The Consumers Gas Co. of Toronto and B.T. Co. v C.N.R. City of Toronto and Twp. of Scarboro, Ont., re Victoria Park Ave. Subway. Law and jurisdiction.....	Dismissed
30513	Normental Ry. Co. and Normental Mining Corp. Ltd. Order 58001. Law and Jurisdiction.....	Dismissed
36156.2	Q.R.L. & P. Co. re Order of the Board dismissing the application of the Q.R.L. & P. Co. in the matter of tariff of tolls for the carriage of passengers on the motor buses operating by the Co. between the Village of St. Jean de Boischatel and the City of Quebec.....	Dismissed
6949.2	C.E.R. Co. from Order 64408, re reduction of fares.....	Dismissed
44168	Brompton Pulp and Paper Co. Ltd. and C.N.R. (C.N.R. Co.) and C.N.O.R. Co., from Order of the Board No. 66708, dated 2nd day of November 1945. Question of law.....	Abandoned
44484	Application of the Bell Telephone Company of Canada for authority to construct and maintain its lines (buried cables) across and under certain public highways in the County of Middlesex, Ontario, B.T.C. v County of Middlesex. Question of law and jurisdiction.....	Allowed
45582	From judgment in re application of the Railway Association of Canada for authority to make a General increase of 20 per cent in its freight rates....	Allowed
26782.313	From Order of the Board No. 70832, dated the 26th day of June 1948, authorizing construction of a viaduct over the line of the Canadian National Railways at Rimouski, P.Q. and apportioning the cost of construction and maintenance of the said viaduct.....	Allowed
45464.1	Canada Steamship Lines Limited, from Order of the Board No. 78767, dated April 16, 1952, directing the Canadian National Railways and the Canadian Pacific Railway Company to make a reduction in freight rates in accordance with Board's Circular No. 272 dated April 16, 1952, which was issued in implementation of subsection 5 of section 18, chapter 22, 15-16 Geo. VI.....	Pending
46920.1	The Railway Association of Canada on behalf of certain of its member companies from Judgment of the Board, dated February 21, 1954, in the Rate Base-Rate of Return Case.....	Dismissed
10041.150	The Bell Telephone Company of Canada from interim Order No. 82811, dated December 30, 1953, requiring that Company to furnish certain facilities requested by the Canadian National Railways. At the request of Canadian National Railways the Board rescinded Order No. 82811, and the application for leave to appeal was thereupon withdrawn.....	Withdrawn

LIST OF CASES APPEALED TO THE SUPREME COURT OF CANADA FROM
FEBRUARY 1, 1954 TO DECEMBER 31, 1955—*Concluded*

File No.	Subject	Decision
33365.162	Swift Canadian Company Limited from Judgment of the Board dated June 10, 1955, in respect of Canned Dog Food Manufactured and sold under the trade name "PARD"	Dismissed
24271.10	The Minister of Agriculture of British Columbia re Board's Order No. 89032—Rates on grain and grain products—Question of law.....	Pending

SUMMARY

DISMISSED.....	71
ALLOWED.....	19
ABANDONED.....	6
WITHDRAWN.....	5
PENDING.....	2
TOTAL.....	103

APPENDIX "A"

LIST OF MEMBERS OF THE BOARD WHO HAVE SERVED OR ARE SERVING
ON THE BOARD

Member's Name	Office	Appointment	Termination
Hon. A. G. Blair, K.C.	Chief	1st Feb. 1904	31st Oct. 1904 (resigned)
Hon. M. E. Bernier	Deputy	1st Feb. 1904	31st Jan. 1914 (served term)
James Mills, LL.D.	Commr.	1st Feb. 1904	31st Jan. 1914 (served term)
Mr. Justice A. C. Killam, K.C.	Chief	6th Feb. 1905	1st March 1908 (died)
Hon. J. P. Mabey, K.C.	Chief	28th March 1908	6th May 1912 (died)
D'Arcy Scott	Ass't.	17th Sept. 1908	16th Sept. 1918 (served term)
S. J. McLean, C.M.G., LL.D., Ph.D.	Commr.	17th Sept. 1908	16th Sept. 1918 (reappointed)
Hon. Thos. Greenway	Commr.	17th Sept. 1908	30th Oct. 1908 (died)
A. S. Goodeve	Commr.	4th April 1912	22nd Nov. 1920 (died)
Sir Henry L. Drayton, P.C.Kt., K.C.	Chief	1st July 1912	1st Aug. 1912 (resigned)
Hon. W. B. Nantel, P.C., K.C., LL.D.	Deputy	20th Oct. 1914	19th Oct. 1924 (served term)
A. C. Boyce, K.C., D.C.L.	Commr.	4th Oct. 1917	3rd Oct. 1927 (served term)
Dr. J. G. Rutherford, C.M.G.	Commr.	17th Sept. 1918	24th July 1923 (died)
Hon. F. B. Carvell, P.C., K.C.	Chief	2nd Aug. 1919	2nd Aug. 1924 (died)
S. J. McLean, C.M.G., LL.D., Ph.D.	Commr.	17th Sept. 1918	16th Sept. 1928 (reappointed)
Calvin Lawrence	Ass't.	6th Aug. 1919	
Hon. Frank Oliver, P.C.	Commr.	4th Nov. 1921	4th May 1931 (died)
Hon. H. A. McKeown, K.C.	Commr.	21st Sept. 1923	20th Sept. 1928 (reached age of 75)
Thomas Vien, K.C., LL.L.	Chief	16th Sept. 1924	28th Feb. 1931 (resigned)
Hon. T. C. Norris	Deputy	5th Sept. 1925	31st Jan. 1931 (resigned)
S. J. McLean, C.M.G., LL.D., Ph.D.	Commr.	30th March 1928	29th March 1938 (served term)
John A. Stoneman	Ass't.	17th Sept. 1928	16th Sept. 1938 (served term)
Mr. Justice C. P. Fullerton, K.C.	Commr.	12th March 1929	11th March 1939 (reappointed)
F. A. Labelle	Chief	13th Aug. 1931	31st Dec. 1933 (resigned)
G. A. Stone	Deputy	16th Dec. 1931	15th July 1933 (died)
F. N. Garceau, K.C.	Commr.	16th Dec. 1931	15th Dec. 1941 (reappointed)
Hon. Hugh Guthrie, P.C., K.C.	Deputy	16th Sept. 1933	10th Apr. 1943 (reached age of 75)
Hugh Wardrope	Chief	12th Aug. 1935	3rd Nov. 1939 (died)
John A. Stoneman	Ass't.	8th Nov. 1938	7th Nov. 1948 (reappointed)
F. M. MacPherson	Commr.	17th Mar 1939	11th March 1949 (served term)
Col. J. A. Cross, C.M.G., D.S.O., K.C.	Commr.	21st Sept. 1939	20th Sept. 1949 (reappointed)
G. A. Stone	Chief	1st April 1940	30th June 1948 (resigned)
Armand Sylvestre, Q.C., LL.B.	Commr.	16th Dec. 1941	(1st July 1947 (reached age of 75) reappointed 1st July 1947 to 30th June 1948)
Hon. Mr. Justice M.B. Archibald LL.B.	Deputy	18th April 1945	17th Apr. 1955 (reappointed)
H. B. Chase, C.B.M.	Chief	1st July 1948	Oct. 31, 1951 (resigned)
Hugh Wardrope	Commr.	28th July 1948	27th July 1958
W. J. Patterson	Ass't.	8th Nov. 1948	7th Nov. 1958
F. M. MacPherson	Commr.	1st April 1949	3rd July 1951 (resigned 1st Nov. 1950)
Hon. Mr. Justice John D. Kearney, M.C.	Commr.	21st Sept. 1949	29th March 1959
O. A. Matthews	Chief	1st Nov. 1951	15th Jan. 1957 (resigned)
Armand Sylvestre, Q.C., LL.B.	Commr.	1st Jan. 1953	31st Dec. 1962 (resigned 1st Sept. 1955)
L. J. Knowles	Deputy	18th April 1955	17th April 1960
C. D. Shepard, Q.C.	Commr.	1st Sept. 1955	31st Aug. 1965
	Chief	15th Jan. 1957	14th Jan. 1967

APPENDIX "B"

Federal Statutes Conferring Jurisdiction on the Board of Transport Commissioners.

Federal Public Statutes conferring jurisdiction on the Board include the following:

1. Railway Act—Chap. 234, R.S.C. 1952. This Act confers extensive judicial, regulatory and administrative functions on the Board in respect of, inter alia, location, construction and operation of railways that are subject to the legislative authority of the Parliament of Canada; protection at highway-railway crossings; The Railway Grade Crossing Fund; express rates; telegraph and telephone tolls; tolls for use of international bridges; uniform accounting of railway companies; railway tolls and tariffs.
2. Transport Act, Chap. 271, R.S.C. 1952. This Act confers jurisdiction on the Board in respect of licensing of ships on the Great Lakes, Mackenzie River and Yukon River; their charges and tolls; and agreed charges of rail and water carriers subject to the Board's jurisdiction.
3. Pipe Lines Act, Chap. 211, R.S.C. 1952. This Act confers jurisdiction on the Board in respect of the location, construction and operation of interprovincial and international gas and oil pipe lines; accounts of companies operating such lines; tariffs and tolls of such oil pipe lines.
4. Bridges Act—Chap. 20, R.S.C. 1952.
5. C.N.R.—C.P.R. Act, Chap. 39, R.S.C. 1952.
6. Dry Docks Subsidy Act, Chap. 91, R.S.C. 1952.
7. Maritime Freight Rates Act, Chap. 174, R.S.C. 1952.
8. Radio Act, Chap. 233, R.S.C. 1952.
9. St. Lawrence Seaway Authority Act, Chap. 242, R.S.C. 1952.
10. Telegraphs Act, Chap. 262, R.S.C. 1952.
11. Canadian National Railways Act, Chap. 29 of Statutes of 1955.

A number of Private Acts also confer jurisdiction on the Board in respect, inter alia, of tariffs and tolls of certain telephone companies, including The Bell Telephone Company of Canada, British Columbia Telephone Company, Bonaventure and Gaspé Telephone Company, Yellowknife Telephone Company; stock issues of such companies; and in respect also of certain other companies and statutory bodies.

AMENDMENTS TO THE RAILWAY ACT AND TRANSPORT ACT.

No amendment was made to the Railway Act or Transport Act in 1956.

APPEALS FROM ORDERS OF THE BOARD

The Minister of Agriculture of British Columbia applied to the Supreme Court of Canada for leave to appeal from the Board's Order No. 89032, dated June 18, 1956, which dismissed the Appellants' application for a reduction in the domestic grain rates to, from and within the Province of British Columbia. The application was pending at the close of 1956.

DECISIONS OF THE BOARD

The Board's Judgments, Orders, Regulations and Rulings are published fortnightly by the Queen's Printer, Ottawa. The 1956 proceedings are reported in Volumes 45 and 46 J.O.R. & R., and most of the Judgments are also reported in Volumes 73 and 74 of Canadian Railway and Transport Cases.

The following are notes on a number of the Judgments given in 1956:

COMMUTATION FARES CASE: 46 J.O.R. & R. 61; 73 C.R.T.C. 193.

In May, 1954, the railways applied for rescission of Order No. 75234 which was issued in 1950 and prescribed commutation rates. The railways also sought freedom to increase commutation rates approximately 100%, half of the increase to be effective immediately, followed by the remaining half six months later. The first hearing by the Board was held in Toronto and was in respect of commutation services and fares in the Toronto area. In a judgment dated August 4, 1954, the Board authorized adjustment of commutation rates in that area as applied for but subject to the condition that the increases be made effective in three stages, namely, 50% of the increase not earlier than September 30, 1954, another 25% not earlier than six months later and the final 25% not earlier than another six months thereafter. Hearings were held subsequently in Montreal and Ottawa, and by a Judgment dated February 8, 1955, the Board authorized an immediate increase of 50% in the rates in the Montreal area and elsewhere except Toronto, and continued its consideration and investigation of the application. (See Annual Report for 1955, page 14). The investigation continued in 1956 and, following consideration of statements of the railways' revenues and expenses, which showed that they were not meeting their out-of-pocket costs of the commutation service, and following conferences with the interested parties, the Board by Judgment dated March 29, 1956, authorized increases to the 75% level effective not earlier than May 1st, 1956, and to the 100% level not earlier than one year later, rates in the Toronto area to move concurrently with increases elsewhere. The Board also extended the period of validity of the 50-trip and 40-trip tickets to 32 days from 30 days and exempted scholars' fares from the second half of the increase.

The Judgment dealt with the contentious issue of allowance for cost of carrying pass-holders and methods of assessing pass-holder travel, but held that it was unnecessary to determine the merits of using one or other of the methods because after calculating the effect of applying each method and after giving full consideration to all other items of revenue and expenses it was the Board's opinion that under the proposed rates the railways could not be expected to earn revenues in excess of the out-of-pocket cost properly chargeable to commutation service.

The Board also stated that its present Judgment should remove commutation rates from the field of controversy for the foreseeable future and such result would also create a desirable atmosphere for railways, commuters, civic and provincial authorities to look anew at the overall problem of traffic congestion --and the Board reaffirmed its willingness to lend its good offices to bring about an improvement in respect of the ever-growing problem of traffic congestion.

WILCAN SHIPPING CORPORATION V. CANADA STEAMSHIP LINES: 46 J.O.R. & R. 33 and 103; 73 C.R.T.C. 230.

Wilcan Shipping Corporation applied under the Transport Act for a licence to engage in carriage by water, from Windsor to Fort William, of motor vehicles, automobiles and trucks. It proposed to lease the "SS. LAKETON" and convert it into a specially designed auto-carrying ship, and it submitted that present

and future public convenience and necessity would be served by the proposed service. The application was opposed by Canada Steamships Limited, Canadian Pacific Railway Company and Canadian National Railways. Two hearings were held. On a question of law, whether the Board has power under the Transport Act to licence a ship to transport only motor vehicles, it was held that the Board's power to licence ships to transport "goods" includes the lesser power to licence a ship to transport some only of such goods where the Board is satisfied that the proposed service is and will be required by the present and future public convenience and necessity, and that such limited transport is not prohibited by the Transport Act but is subject to regulation by the Board. On the facts of the case Commissioner MacPherson, with whom Commissioner Knowles agreed, found that the proposed service is and will be required by the present and future public convenience and necessity. Assistant Chief Commissioner Wardrope, dissenting on the facts, found that the proposed service is not essential to the carriage of the traffic. The majority opinion was that the application should be granted and it was decided that an Order would issue licencing the ship in the name of the Applicant as soon as the latter formally notified the Board that it had leased the ship and would proceed to operate it during the 1956 navigation season. The Applicant, however, did not notify the Board to that effect nor commence operations.

TRANS-CANADA PIPE LINES LIMITED:

46 J.O.R. & R. 115.

In July 1954 the Board granted leave to the company to construct its proposed pipe line from Alberta to points in Ontario and Quebec but imposed a condition that the company satisfy the Board that satisfactory arrangements have been completed for financing the construction of the entire line. On March 28, 1956, the Board extended to November 1st, 1956, the period within which the company would satisfy the Board in that respect (46 J.O.R. & R. 12), and on November 30th, 1956, the Board extended the period to January 31st, 1957, (46 J.O.R. & R. 305; 73 C.R.T.C. 309). In both instances the Board was satisfied that the company had done what it reasonably could to advance its project and that the delays were largely beyond its control and not of its making; and that it is the only company which had necessary gas purchase and sales contracts and a permit to take gas out of Alberta. The Board found that the reasons for extending the period were much more compelling than anything placed before the Board against such an extension and it was in the public interest to extend the period. On May 24, 1956, the Board granted leave to the company to construct its western section between the Alberta-Saskatchewan border and Winnipeg. The Board concluded that the company had made a satisfactory case for such leave. The only opposition to the application was by a representative of the Labor Progressive Party, who advocated a publicly owned line. An order giving leave to construct the western section was granted with a provision that it would cease to have force on June 15, 1956, unless Bill 298 respecting the Northern Ontario Pipe Line Crown Corporation was passed prior thereto. The Bill was duly passed and the company commenced to construct the western section.

APPLICATION FOR 15% GENERAL FREIGHT RATE INCREASE:

46 J.O.R. & R. 153 and 311.

On May 15, 1956, the railways applied for authority to make a 15% general freight rate increase. The application was first heard on June 11 and 12, 1956, and subsequently by Order No. 89030, dated June 18, 1956, the Board authorized an interim increase of 7% on traffic other than coal and coke (with exceptions also in respect of other traffic not covered by the application), and 12¢ per ton

on coal and coke. The Order recited that ever since the announcement of the recently negotiated wage increases to the non-operating employees of the railways the Board and its advisors had been studying the possible effects of those increases on the net rail revenues, tolls and traffic of the companies, that it had also examined and tested the figures and estimates placed in evidence by the companies, considered the evidence and submissions of other interested parties, and reappraised the immediate situation concerning freight rates that Counsel for the Provinces and other affected parties had requested adjournment of the hearings; that the Board required time to examine into and satisfy itself on all matters of importance before adjudicating on the application as a whole; that the Board felt that it should have regard to the recommendation of the Royal Commission on Transportation, 1951, that where railways make out a *prima facie* case of need for increases in tolls the Board should consider the desirability of granting interim relief at the earliest possible date pending the final disposition of the application; and that the Board had determined that it is just, reasonable and appropriate to authorize the interim increases in order to enable the railways to make rate changes required by changing conditions and increased cost of providing transportation caused principally by the said wage increases.

Further hearings were held in September and October, 1956. Order No. 90447 was issued on December 17, 1956, authorizing the 7% to be increased to 11% and the 12¢ per ton on coal and coke to be increased to 18¢, as a measure of additional interim relief to the railways pending final determination of the application. In its Judgment thereon the Board concluded that it was proper to affirm the previous increases of 7%, and 12¢ per ton on coal and coke, and to authorize those increases to be increased to 11% and 18¢ per ton, respectively, over the rates in effect prior to July 3, 1956. The Board stated that these additional increases were granted with a view to the possible correction of the estimated deficiency of \$4,300,000 in the net rail income for the constructive year 1956, as projected by the Board for Canadian Pacific as the yardstick railway, and that the increases were authorized pending the re-assessment by the Board of the factors of attrition and erosion together with the overall situation when the 1956 actual and 1957 forecasted results are made available to the Board for further analyses and consideration in early 1957. The Board was of the opinion that meanwhile the net rail income deficiency of Canadian Pacific as estimated by the Board for the constructive year 1956 would continue during the early months of 1957 to such an extent as to make it appropriate and just to authorize the additional increases. The Board also adopted the amount of \$1,340,000,000 for the net rail investment of Canadian Pacific Railway as of December 31, 1955, and stated that it would determine as soon as practicable the additional net rail investment for the year 1956. The Board also summarized and dealt in some detail with "special pleadings" requesting exclusion of certain traffic from rate increase, or modification of the extent of increase.

Commissioner L. J. Knowles concurred in the general conclusions in the Judgment and added observations and conclusions of his own.

APPLICATION OF CANADA STEAMSHIP LINES LIMITED re Agreed Charge
C.T.C. (AC) No. 153:
46 J.O.R. & R. 165; 74 C.R.T.C. 69.

This was an application under the Transport Act in which Canada Steamship Lines Limited asked for an order directing and authorizing its participation in an Agreed Charge which had been filed in respect of certain traffic from Cardinal and Port Credit, Ontario, to points in British Columbia. The Agreed Charge was between the Canada Starch Company Limited and St. Lawrence Starch Company Limited, as shippers, and Canadian Pacific Railway Company,

Canadian National Railway Company and other carriers. The railways opposed the application on the grounds that Canada Steamship Lines did not serve the points of origin as a carrier by water and that the movement of the traffic from Cardinal to Cornwall, and from Port Credit to Toronto, by highway transport constituted an interchange of traffic with an unregulated carrier and therefore was contrary to the Agreed Charge legislation. The Board held as a fact that the Applicant serves Cardinal and Port Credit; that such points are competitive points from which the Applicant transports goods for which it files tariffs of tolls required to be filed by the Transport Act and that it has established through routes and interchange arrangements with a carrier by rail; and that the Applicant is entitled to become a party to the agreement for the Agreed Charge in accordance with section 32(5) of the Transport Act.

APPLICATION OF CANADIAN NATIONAL RAILWAYS re Crossing of Thames Street, Ingersoll, Ontario:

46 J.O.R. & R. 173; 74 C.R.T.C. 28.

Protection of the crossing by manually operated gates had been provided under an Order of the Board made in 1917, which placed the cost of maintenance upon the railway. Following a fatal accident at the crossing in 1954 the C.N.R. applied for authority to replace the existing protection with automatically controlled short arm gates, flashing light signals and bell. The railway asked that the cost of installation should be borne, after a grant from The Railway Grade Crossing Fund, 25% by the Town and 15% by the railway, with the cost of maintenance to be shared equally. The Board held that the change from manual to automatic operation of the gates and the reduction in maintenance costs will effect a considerable saving and resulting benefit to the railway, and under the circumstances the Board made a grant of 60% of the cost of installation from the Fund and directed that the balance of such cost and the cost of maintenance be borne by Canadian National Railways.

APPLICATION OF INLAND CEMENT COMPANY LIMITED re rate on Cement Clinker from Exshaw to Clover Bar, Alberta:

56 J.O.R. & R. 193 and 281; 74 C.R.T.C. 1.

Canadian Pacific established a rate of 12¢ per 100 lbs. on cement clinker from Exshaw to Clover Bar. Inland Cement Company applied for suspension of this rate on the grounds that it was unjust and unreasonable and unjustly discriminatory. Simultaneously the Province of Alberta made application for disallowance of the existing Canadian Pacific rates on cement from Exshaw to destinations in Alberta on the grounds that the rates on cement became unjust, unreasonable and unjustly discriminatory upon the establishment of the 12¢ rate on cement clinker. Saskatchewan Cement Corporation Limited intervened in support of the application. The Board found that the 12¢ rate on cement clinker was less than reasonable and that it was the Board's duty to disallow it in the absence of corrective action by Canadian Pacific; also that a reasonable rate relationship should be established by Canadian Pacific on cement clinker which would bear a proper relativity to cement; and the Board required Canadian Pacific within 60 days to submit a tariff satisfactory to the Board, failing which an Order would issue disallowing the existing rate and prescribing a rate for the future. Canadian Pacific did not submit the tariff and by Order No. 90119, dated November 7, 1956, the Board found that there was no justification for delaying the implementation of the Judgment and disallowed the 12¢ rate on cement clinker and directed that in lieu of such rate Canadian Pacific establish effective on December 1, 1956, a rate not less than 29¢ per 100 lbs., and thereafter maintain such rate on a basis not less than 62½% of the contemporaneous rate on cement from Exshaw to Edmonton.

APPLICATION OF VANCOUVER MERCHANTS' EXCHANGE LIMITED for an Order re Flaxseed Rates from Prairie Points to Pacific Coast Ports:

46 J.O.R. & R. 203; 74 C.R.T.C. 75.

Section 328(6) of the Railway Act provides that rates on grain and flour eastbound to Fort William and Port Arthur shall be governed by the Crow's Nest Pass Agreement made pursuant to chapter 5 of the Statutes of Canada 1897. By General Order No. 448 the Board in 1927 had required the same rates to be applied westbound to the Pacific Coast for export.

The Applicant complained that higher rates on flaxseed to the Pacific Coast than to the Lakehead were unjustly discriminatory and requested that either they be equalized or placed on the Crow's Nest basis. After hearing evidence of botanical and agricultural experts, and representatives of the grain trade and the railways, and after considering the history of the rates and records in which the word "grain" was used, the Board held that the sense in which Parliament used the word "grain" in the Crow's Nest Pass Act and in the 1925 amendment to the Railway Act—(now sec. 328 (6))—includes flaxseed. The Board therefore directed that General Order No. 448 will be applicable to flaxseed moving to Pacific Coast ports for export, and the railways were directed to adjust their rates accordingly on such movements.

APPLICATION OF WESTSPUR PIPE LINE COMPANY for Leave to Construct an Extension of its Interprovincial Pipe Line:

46 J.O.R. & R. 267

Westspur owns and operates an interprovincial pipe line system between Cromer, Manitoba, and Midale, Saskatchewan. In September 1956 it applied under the Pipe Lines Act for leave to construct an extension of that line from its Midale terminal westward to take oil from the Ralph-Weyburn-Halbrite area in Saskatchewan. The application was opposed by the Government of Saskatchewan and by Trans-Prairie Pipelines Limited. Evidence established that Trans-Prairie had obtained a permit from the Saskatchewan authorities, after a public hearing before the Saskatchewan Oil and Gas Conservation Board on September 28 and 29, 1956, for construction of a pipe line very similar to that proposed by Westspur. Trans-Prairie's line was in course of construction when the hearing of Westspur's application was held. The Board refused to grant Westspur's application, holding that although the Westspur project appeared to have certain advantages over the Trans-Prairie project those advantages were not of such magnitude as to warrant construction of the Westspur extension where, as would be the case, such construction would either (a) be in duplication of the Trans-Prairie line if both are completed, which would be uneconomic and unnecessary duplication of pipe lines, or (b) result in abandonment of the Trans-Prairie line authorized by the Minister of Mineral Resources of Saskatchewan and actually in course of construction; and the Board was not satisfied that the public interest would be well served by granting the application under the circumstances shown by the evidence.

APPLICATION OF BRITISH COLUMBIA TOLL HIGHWAYS AND BRIDGES AUTHORITY FOR LEAVE TO CONSTRUCT A HIGHWAY ACROSS THE RAILWAY OF THE BURRARD INLET TUNNEL AND BRIDGE COMPANY:

46 J.O.R. & R. 296; 74 C.R.T.C. 204.

The applicant is a public corporation established for the purpose of constructing toll highways and toll bridges in British Columbia. It is placing a bridge over Burrard Inlet and found it necessary to carry the bridge over the toll highway owned by The Burrard Inlet Tunnel and Bridge Company. It proposed to place one of the piers of the new bridge on the highway, and the

Burrard Company objected to having its highway encroached upon as proposed and suggested changes in the design of the bridge. The Board was satisfied that all concerned wanted the new bridge and, as the applicant was prepared to provide means for keeping the Burrard Company's highway traffic moving without interruption during the construction of the bridge and to provide a paved strip between piers 4 and 5 equal to the highway already in existence, and to compensate the Burrard Company, the Board's opinion was that there did not appear to be any good reason for changing the design of the bridge, which change would cost a large sum of money and seriously delay construction of the bridge, and consequently granted the application.

APPLICATION OF TOWN OF VICTORIAVILLE for authority to Build a Subway:
45 J.O.R. & R. 486; 73 C.R.T.C. 167.

The Applicant applied for authority to construct a subway to eliminate a level crossing. The Board found that traffic movement will be greatly improved by the project and that considerable benefit will accrue to the public. The Bell Telephone Company of Canada adduced evidence that the work will necessitate removal of telephone poles and made submissions as to how the cost of removal should be borne. The Board pointed out that it is reviewing its rule of practice followed heretofore in respect of the cost of removal of plants and equipment of public utilities where grade separation is ordered. The cost of construction of the subway was estimated at \$224,000. The Board made a grant from The Railway Grade Crossing Fund of 60% of that cost, placed \$15,000 of the cost on Canadian National Railways and the remainder of the cost on the Town, reserving judgment in respect of the cost of removing the telephone poles.

RE: DOMESTIC GRAIN RATES WITHIN WESTERN CANADA:
74 C.R.T.C. 113.

This matter involved the following:

(a) application of the railways requesting that domestic grain rates in Western Canada be increased by 20%;

(b) 10% increase in Western domestic grain rates tentatively authorized by the Board in its judgment of August 31, 1955;

(c) application of the Minister of Agriculture of British Columbia for a reduction in domestic grain rates to, from and within the said Province;

(d) applications of the City of Vancouver and District of Surrey for reduction in such rates to the level of grain rates eastbound to Port Arthur and Fort William.

By its Order No. 89032, dated June 18, 1956, and Reasons for Judgment dated December 3, 1956, the Board dismissed the application of the railways for an increase in such rates, rescinded its own tentative 10% increase and dismissed the applications of the City of Vancouver, District of Surrey and Minister of Agriculture of British Columbia for reductions in such rates.

The Minister of Agriculture submitted that because of section 336 of the Railway Act the Western domestic grain rates to, from or within the said province should, as a matter of law, be reduced to the level of the export grain rate at Vancouver. On this point the Board held, *inter alia*, that the word "shall" in section 336 (1) imposes obligations on the railways to conform to the national freight rates policy, wherever reasonably possible to do so, and in default of their fulfilling them there is an implied if not expressed duty also imposed on the Board to require the railways to do so, but the obligation and duty are not absolute but are qualified, conditional and subject to exceptions; that if section

336 indicates that the Board should implement the national freight rates policy by equalizing domestic with export rates it would mean that it had been directed to equalize one class or kind of rate with a fundamentally different one; that the practical considerations which surround the establishment of export rates are entirely different from those obtaining in respect of domestic traffic; that it is not reasonably possible to equalize the export and domestic grain rates in the manner sought, and for the Board to so require would not serve to implement the national freight rates policy but would have the opposite effect and constitute an impediment to making further progress thereon; that the level of the export rate on grain is not an appropriate criterion for the determination of just and reasonable domestic rates and to reduce the latter as requested would result in a western domestic grain rate which would be unreasonably low; that the Board is under no legal obligation to require the railways to publish the same rates for domestic users as are now given to the export grain coming to Vancouver, but that if the Board considered that such requirement were justified it has the power to enforce it; that section 336 has extended the Board's discretionary powers by giving it the necessary jurisdiction to implement the national freight rates policy; and the Board invoked paragraph (g) of section 336(4) and declared that the equalization of export and domestic grain rates as requested by the Minister of Agriculture be regarded as an exception and excluded from equalization. The Board also held that section 336 was not enacted with a view to testing cases of unjust discrimination nor did the section set out any new rules to be applied where the issue is the existence or non-existence of unjust discrimination, such issue being governed by section 317 and following sections of the Railway Act.

The complaints of the City of Vancouver and District of Surrey were predicated upon the premise that the rates on domestic grain from the prairies to British Columbia should be made upon the same basis as the eastbound Crow's Nest rates from the prairies to Port Arthur and Fort William. The Board held that this was not justified, as the eastbound rates are statutory.

The Board also found that the marginal position of the British Columbia poultry industry is due largely to the fact that the industry is far removed from the source of supply of feed grain and to the reduction made in the Federal subsidy paid on feed grain, but that it has never been the function of the Board in determining freight rates to attempt to correct geographical and climatic disadvantages such as British Columbia suffers in respect of production of feed grain and that a depressed industry which is experiencing a reduction in a Federal subsidy cannot reasonably expect the railways or the shippers of other commodities to restore the effect of the subsidy through a reduction in freight rates. As to manufacturing industries using domestic grain the Board found that it had not been established that such industries are in a marginal position financially, and even if they were it was not established that domestic grain rates are responsible for that condition. As to the submission that domestic grain rates in British Columbia should not exceed the export rate at Vancouver by more than 50% the Board stated that the considerations which motivate the publication of export rates are quite different from those concerning traffic for domestic consumption within Canada, and in export trade competitive conditions arise which are dissimilar from conditions affecting domestic trade. The Board affirmed previous decisions that an export rate is not a measure of the reasonableness of a domestic rate and that the primary test of a domestic rate is whether it be reasonable, and stated that the justness and reasonableness of domestic rates should be dealt with *per se*.

As to the request of the railways for a further increase of 20% in western domestic grain rates, the Board held that although these rates occupy the next to the lowest place in the examples of the rate structure of Western Canada

referred to in the Judgment, the present level of grain rates does not result in an unreasonably low return to the railways from a revenue standpoint, and that a further increase in the western scale to restore, as requested by the railways, these rates to their proper place in the rate structure is not required; that there are maximum and minimum zones within which judgment may be exercised as to reasonableness of rates; that western domestic grain mileage rates are within the lower bracket of the zone of reasonableness, while eastern domestic grain mileage rates are in the upper bracket. The Board continued its consideration of equalization of grain mileage rates within Canada and indicated that at the conclusion of its investigation it would, if reasonably possible to do so and unless it found it necessary or desirable to have a further hearing, proceed to prescribe a revised uniform domestic grain rate scale applicable to eastern and western Canada.

APPENDIX "C"

JANUARY 25th, 1957

REPORT OF THE TRAFFIC DEPARTMENT FOR THE
YEAR ENDED DECEMBER 31, 1956.

Submitted herewith is the report of the Traffic Department of the Board for the calendar year 1956, setting out the number of Tariff schedules and ancillary tariff documents received for filing; also a brief summary of other work performed:

TARIFFS AND SUPPLEMENTS FILED

<i>Rail—</i>	
Freight.....	38,154
Agreed Charges.....	323
Passenger.....	1,460
Sleeping and Parlour Car.....	133
<i>Water—</i>	
Freight.....	285
Passenger.....	14
Express.....	870
Telephone.....	2,103
Telegraph.....	148
International Bridge.....	3
Total tariff schedules.....	43,493

OTHER TARIFF DOCUMENTS FILED

Concurrences.....	170
Revocation Notices.....	7
Powers of Attorney.....	446
Revocation Notices.....	29
Total tariff documents.....	652
Total.....	44,145

MARITIME FREIGHT RATES ACT

For the period July 1, 1955 to June 30, 1956, inclusive, the detail of work performed was:

Rates checked.....	934,618
Extensions checked.....	467,309
Additions checked.....	8,939
Corrections issued.....	10,752
Orders issued.....	112
Reimbursement claimed.....	\$1,607,014.89
Reimbursement allowed.....	1,581,807.57
Net deduction.....	25,207.32

ORDERS ISSUED

During the year, in addition to Orders issued pursuant to the Maritime Freight Rates Act as mentioned above, the following Orders were issued:

Traffic	Water Licenses	Agreed Charges	Telephone Telegraph	Bridges Tunnels	Total
48	15	1	178	—	242

AGREED CHARGES

Under the revised legislation of 1955, as set out in my report for the year 1955, 79 new agreements for agreed charges, and 244 supplements to existing agreements were received for filing. During the year 16 agreements were cancelled or expired.

As at December 31, 1956, 157 agreements were in effect applicable to the traffic of 612 shippers, compared with 95 agreements applicable in respect of 352 shippers at the end of the year 1955.

WATER TRANSPORTATION LICENSES

Licenses, under Part 2 of the Transport Act, 1938, were granted as follows:—

Applications	Licenses	Ships	Area
7	7	53	Great Lakes
7	7	176	Mackenzie River

SUBSIDY RE MAINTENANCE OF TRACKAGE IN THE LAKE SUPERIOR DISTRICT (Sec. 468—Railway Act)

During the year 1956 no change was made in the freight rate reductions authorized pursuant to the Statute. Railway maintenance costs have not decreased below the maximum sum payable under the Statute, but changes in the character of the traffic, its length of haul and in the normal basis of revenue will necessitate consideration of a change in the reduced rate level in the coming year.

GENERAL

Applications or formal complaints to the Board dealt with by this department, totalled 268. A total of 3,412 communications emanated from this department during the year relating to its administrative functions in the handling of complaints; interpretation of tariffs or classification and the filing of same; furnishing rate information; also concerning powers of attorney, concurrences, free or reduced transportation; administration of the Maritime Freight Rates Act and the granting of water licenses under the Transport Act, 1938.

During the year two general increases in freight rates within Canada were authorized, which resulted in the railways filing some 1700 tariff schedules; and two general increases in international rates also occurred involving similarly the filing of some 4,700 tariff schedules.

A. S. KIRK,
Director

APPENDIX "D"

FEBRUARY 13th, 1957.

THE SECRETARY,

BOARD OF TRANSPORT COMMISSIONERS FOR CANADA,
OTTAWA, CANADA.

DEAR SIR:—

I submit herewith my Annual Report and information regarding the work of the Engineering Branch of the Board during the past year, and attached herewith are details and summarized statement of works of the Engineering Department during the year 1956.

Yours very truly,

J. E. DUMONTIER,
Director of Engineering

RAILWAY GRADE CROSSING FUND

The Railway Grade Crossing Fund was established in 1909 and funds have been made available since that time for the purpose of aiding actual construction work for the protection, safety and convenience of the public in respect of highway crossings of railways, within the terms and conditions provided in the Railway Act.

The amount voted to the Railway Grade Crossing Fund from 1909 to April 1st, 1956, was \$23,000,000.00.,

Amount paid.....	\$ 12,904,905 67
Outstanding commitments.....	7,095,869 43
	<hr/>
	\$ 20,000,775 10
Balance available.....	2,999,224 90
	<hr/>
	\$ 23,000,000 00

The Railway Act as amended in 1955 provides annually a sum of \$5,000,000 to the Railway Grade Crossing Fund to aid actual construction work for the protection, safety and convenience of the public in respect of crossings. No grants from the Railway Grade Crossing Fund can be made to a crossing unless it has been in existence for three years.

Contributions from the Railway Grade Crossing Fund that may be applied to actual work of construction for the protection, safety and convenience of the public in respect of any one crossing are limited to 60% of this cost, up to a maximum of \$300,000. Contributions from the Railway Grade Crossing Fund may also be applied towards the cost of reconstruction and improvement of an existing grade separation, but, in such case, the contributions are limited to 30% of the actual cost of reconstruction and improvement up to a maximum of \$150,000. The remainder of the cost after the Board's contribution, is generally shared between the Railway and the Highway authority having jurisdiction over the road concerned, but in view of the different conditions prevailing at the various crossings where grade separations are required, each application is considered on its own merits before the apportionment of cost is decided.

In the case of automatic protection at Highway crossings, conditions are more or less similar in each case and for this reason, the cost of installation is generally apportioned as follows; 60% from the Railway Grade Crossing Fund, 25% by the Highway authority, and 15% by the Railway. No contributions can be made towards the cost of maintenance and operation of automatic protections, and these costs are generally shared equally between the Highway authority and the Railway.

The increased amount in the Grade Crossing Fund and the increased grants that can be made from the Fund have resulted in a substantial increase in the number of applications and has permitted the Board to approve and grant contributions towards the cost of grade separations and Highway crossing protections to the extent of the funds now provided by the Railway Act.

GRADE SEPARATIONS APPROVED IN 1956

Grade separations were approved during the year at the following points, and contributions were made towards the cost of construction out of the Railway Grade Crossing Fund:

Grade Separations	Contributions From the Railway Grade Crossing Fund	
Construction of a subway at Mercier St. Victoriaville, P.Q., Mileage 55.64, Danville Subd. C.N.R.....	60%	\$ 134,400.00
Construction of subway at Highway No. 69, Foot's Bay, Mile- age 124.4, Bala Subd., Ont. C.N.R.....	60%	103,200.00
Reconstruction of overhead bridge at Austin Road, Magog, Mileage 89.6, Sherbrooke Subd. P.Q., C.P.R.....	30%	15,090.00
Construction of overhead bridge, Highway No. 5, Mileage 52.33, Togo Subd. Man., C.N.R.....	60%	25,800.00
Reconstruction of overhead bridge, Highway No. 17, Thunder Bay District, Mileage 36.3, Kashabowie Sd. Ont. C.N.R..	30%	46,850.00
Construction of subway, Royal York Rd., Township of Etobi- coke, Mileage 7.70, Galt Subd. Ont. C.P.R.....		300,000.00
Construction of overhead bridge, Dundas St. Mileage 7.76, Galt Subd. Ont. C.P.R.....		300,000.00
Construction of overhead bridge, Highway No. 8, Township of Litchfield, Mileage 54.23, Waltham Subd., Ont. C.P.R.....	60%	60,000.00
Reconstruction of overhead bridge, Birchmount Ave. Township of Scarborough, Mileage 326.6, Oshawa Subd., Ont. C.N.R.	60%	54,000.00
Construction of subway, Bloor St. West, Township of Etobicoke, Mileage 8.8, Galt Subd., Ontario, C.P.R.....		300,000.00
Construction of subway, Greenwood Ave., Toronto, Mileage 3.57, Oshawa Subd. Ont. C.N.R.....		300,000.00
Reconstruction of subway at Mileage 73.16, Cowichan Subd., B.C. C.N.R.....	30%	16,800.00
Reconstruction of overhead bridge, Maria St. Acton, Ont. C.N.R.....	30%	22,575.85
Construction of subway, Mileage 110.95, Sydney Sub. N.S., C.N.R.....	60%	109,500.00
Construction of overhead bridge, Mileage 38.11, Central Butte Subd. Sask., C.N.R.....	60%	127,800.00
Reconstruction of overhead, Highway No. 2, Township of Brantford, Mileage 59.17, Waterford Subd., Ont., T.H. & B.	30%	134,100.00
Reconstruct overhead bridge, Township of Orillia, Mileage 3.08, Port McNicoll Subd., Ont. C.P.R.....	30%	19,375.00
Reconstruct overhead bridge, County Road No. 24, County of Brant, Mileage 70.29, Waterford Subd. Ont., T.H. & B.....	30%	21,450.00
Reconstruction of overhead bridge, County Road No. 27, Township of Brantford, Ont., L.E. & N. Rly.....	30%	18,900.00
Reconstruction of overhead bridge, County Road No. 27, Township of Brantford, Ont., L.E. & N. Rly.....	30%	19,800.00

Grade Separations	Contributions From the Railway Grade Crossing Fund	
Reconstruction of overhead bridge, 1st. St. Brandon, Man., C.P.R.....	30%	\$ 5,700.00
Reconstruction of overhead bridge, Kipp St. Nobleford, Mileage 11.5, Aldersyde Subd. Alta., C.P.R.....	30%	780.00
Overhead bridge, Township of Crowland, Mileage 13.99, Canada Div. Ont., N.Y.C.....	60%	165,900.00
Overhead bridge, Highway No. 35, Township of Manvers, Mileage 45.66, Peterborough Subdivn., Ont., C.P.R.....	60%	120,240.00
Overhead bridge, 97th. St. Edmonton, Alta., C.P.R.....	60%	270,600.00

The following grade separations were approved during the Year and contributions towards the cost could not be made from the Railway Grade Crossing Fund, under the terms of Section 265 of the Railway Act:

Reconstruction of overhead bridge across C.P.R. in N.E. $\frac{1}{4}$ of Sec. 27-16-5-2, Sask., Mile 1.6, Indian Head Subd.

Reconstruction of overhead bridge over C.P.R. in Lot 2, Con. 6, Twp. South Orillia, Ont. Mile 3.08, Port McNicoll Subd.

Reconstruction of subway at Mile 40.7, St. Hyacinthe Subd., at Girouard St., St. Hyacinthe, P.Q.

Construction of overhead bridge over C.N.R., in Lot 9, Con. 11, Twp. of Tay, Ont. Mile 62.10, Midland Subd.

Overhead bridge across C.N.R., Highway No. 11, in Lot 11, Con. 4, Twp. of Orillia, County of Simcoe, Ont. Mile 85.0, Newmarket Subd.

Overhead bridge across C.N.R. on Highway No. 11, in Lot 12, Con. 3, Twp of Chaffey, District of Muskoka, Ont. Mile 35.28, Huntsville Subd.

Construction of overhead bridge over C.N.R. in Lot 21, Con. 10, Twp. of Percy, United Counties of Northumberland & Durham, Ont. Mileage 36.17, Campbellford Subd.

Construction of an overhead bridge across C.P.R., on Trans Canada Highway, Mile 1.64, Mountain Subd. B.C.

Construction of overhead bridge over C.P.R., Mileage 43.78, Nelson Subd. B.C.

Construction of subway to carry Toronto Transit System tracks under C.N.R., Mileage 5.3, Oakville Subd. Mun. of Metropolitan Toronto.

Construction of overhead bridge over C.P.R. at Mileage 124.71, Cascade Subd., B.C.

Construction of overhead bridge over C.N.R., opposite 34th. St. Edmundston, N.B.

Construction of subway on Eglinton Ave. East, under C.P.R., in Mun. of Metropolitan Toronto, Mileage 102.55, Oshawa Subd.

Construction of overhead bridge, over C.N.R. Mileage 41.8, Sussex Subd., N.B.

Replacement of timber overhead bridge by reinforced concrete bridge, Mileage 29.30, Shuswap Subd., B.C.

Construction of a subway under C.P.R. in Con. 4, Twp. of West Zona, County of Oxford, Ont. Mileage 4.49, St. Mary's Subd.

Construction of overhead bridge over C.P.R., at Mileage 85.71, Laggan Subd., Alta.

Overhead bridge on Highway 15, across C.N.R. in Mun. of the Parish of Ste. Anne de Beaupre, P.Q.

Overhead bridge on Highway No. 11, at crossing of C.N.R. in Lot 8, Con. 1, Twp. of Chaffey, Ont., Mileage 32.93, Huntsville Subd.

Overhead bridge over C.P.R., near Canmore, Alta., Mile 65.88, Laggan Subd.

Subway for Orenda Engines Ltd., on private road at Malton, Ontario.

Reconstruction of overhead bridge over C.P.R. at Kenora, Ontario.

Overhead bridge across the C.N.R. opposite Central Avenue, Prince George, B.C.

Overhead bridge over C.N.R. & Can. North. Rly., Mileage 4.93, Burrard Harbor Line.

Overhead bridge over C.N.R. at Mileage 83.66, Nechako Subd., B.C.

Overhead bridge on Trans Canada Highway over the C.P.R. in Banff National Park, Alta., Mileage 119.0, Laggan Subd.

Overhead bridge over C.N.R., at Oromocto, N.B., Mileage 59.5, Centreville Subd.

Overhead bridge over C.P.R. on Trans Canada Highway, Mileage 121.8, Laggan Subd., Alta.

Subway under C.N.R., Mileage 113.46, Vegreville Subd., Alta.

Overhead bridge on Dickson St. Montreal, over C.N.R., Mileage 8.13, Longue Pointe Subd.

TRANSPORT COMMISSIONERS FOR CANADA

EXPENDITURE FOR PROTECTION AT HIGHWAY CROSSINGS
1909 TO DECEMBER 31st, 1956.

Province	Railway Grade Crossing Fund	Per- centage of Total	Province and/or Municipality	Per- centage of Total	Railway	Per- centage of Total	Total
	\$ cts.		\$ cts.		\$ cts.		\$ cts.
British Columbia..	1,109,519 79	41.43	992,199 16	37.05	576,093 72	21.52	2,677,812 67
Alberta.....	1,396,861 16	36.81	1,745,606 92	46.00	652,340 95	17.19	3,794,809 03
Saskatchewan.....	817,363 92	38.47	929,637 76	43.75	377,649 78	17.78	2,124,651 46
Manitoba.....	503,887 36	42.55	282,172 75	23.83	398,259 49	33.62	1,184,319 60
Ontario.....	8,530,017 52	23.45	12,728,982 88	34.99	15,119,546 48	41.56	36,378,546 88
Quebec.....	4,016,831 91	41.15	4,268,165 33	43.73	1,475,867 13	15.12	9,760,864 37
New Brunswick.....	614,315 09	32.19	671,998 60	35.21	622,016 76	32.60	1,908,330 45
Nova Scotia.....	873,211 75	44.14	737,129 11	37.26	367,798 45	18.60	1,978,139 31
P. E. Island.....	29,790 04	55.88	17,019 69	31.93	6,497 67	12.19	53,307 40
Newfoundland.....							
Totals.....	17,891,798 54	29.89	22,373,912 20	37.37	19,596,070 43	32.74	59,860,781 17

ENGINEERING DEPARTMENT
January 28, 1957.

STATEMENT SHOWING TOTAL AMOUNT PAID FOR WORK DONE IN THE DIFFERENT PROVINCES, OUT OF THE RAILWAY GRADE CROSSING FUND AND SPECIAL VOTES —PERCENTAGE OF TOTAL EXPENDITURE IN EACH PROVINCE, AND PERCENTAGE OF POPULATION OF CANADA IN EACH PROVINCE, FROM 1909 TO DECEMBER 31, 1956.

Province	Total Expenditure from the different Votes	Percentage of Total amount of Expenditure	Population of Province	Percentage of Popula- tion of Canada
	\$ cts.			
British Columbia.....	1,109,519 79	6.20	1,165,000	8.33
Alberta.....	1,396,861 16	7.80	939,000	6.73
Saskatchewan.....	817,363 92	4.57	831,000	5.95
Manitoba.....	503,887 36	2.82	776,000	5.55
Ontario.....	8,530,017 52	47.68	4,597,000	32.89
Quebec.....	4,016,831 91	22.45	4,055,000	29.00
New Brunswick.....	614,315 09	3.43	515,000	3.68
Nova Scotia.....	873,211 75	4.88	642,000	4.59
Prince Edward Island.....	29,790 04	.17	98,000	.70
Newfoundland.....			361,000	2.58
Totals.....	17,891,798 54	100.00	13,979,000	100.00

ENGINEERING DEPARTMENT
January 28, 1957.

PROTECTION AT HIGHWAY CROSSINGS BY WIG WAGS AND BELLS, FLASHING LIGHT SIGNALS AND BELLS, AND ELECTRIC GATES

During the year there were 154 installations of automatic protection at railway crossings, in addition to some 46 cases of circuit improvement in connection with existing protective devices.

Applications for automatic protection at railway highway level crossings are made by Municipal and Provincial Highway authorities, sometimes by the Railways. Other cases are brought to the Board's attention by the officers of the Board. All applications do not result in installation of the protection applied for but in the majority of cases all applications entail an inspection by an Engineer of the Board and his report for the Board's decision.

In the case of all installations the Board's Engineers made inspections and conducted a thorough test to ascertain if the installation had been made in accordance with the approved practice and plans, and if the protection was working in a satisfactory manner. An audit of all costs of protection installed was made by an Engineer of the Board. This involved the checking of all items of labor, material, as well as the original invoices. Recommendation was then made in connection with payment from the Railway Grade Crossing Fund.

There were many inspections made during the year in connection with applications for highway crossing protection which did not result in installation, since as a result of the inspection it was found that conditions did not warrant the protection applied for.

HIGHWAY CROSSINGS OPENED, CLOSED, AND HIGHWAY DIVERSIONS

There were 182 new highway crossings opened during the year, and 50 closed, together with four highway diversions. The highway crossings opened involved cases where the railway companies wished to extend their tracks across the existing public ways, and where Municipal and Highway authorities desired to cross existing tracks by new, or diverted highways.

Plans and profiles of the proposed crossings were carefully examined by Engineers of the Board, in order to endeavor to eliminate any objectionable features, such as obstruction to view, grades of approach, etc., and to bring about the safest possible travel conditions. A great many of the cases applied for required an examination on the ground, and recommendations were made following the inspections. Inspections were made in connection with highway diversions to eliminate wherever possible existing railway crossings.

INTERLOCKING PLANTS, AND CHANGES TO PLANTS AND SIGNALS

Recommendations were made in connection with changes to 17 interlocking plants and 18 interlocking plants were inspected in connection with Operating Orders.

When applications are made by the railways for approval of plans covering the installation of, and changes to, signals and interlocked switches at diamond crossings, bridges, or junctions, a thorough check of track and signal plant is made to ensure that the plant is designed to provide full protection for all train movements through the interlocking with signals and switches so arranged and interlocked mechanically, electrically, or both, to prevent trains from receiving conflicting indications.

Before the plants were placed in service, the Board's Engineer made a check in the field in all cases to ensure that circuits were installed in accordance with approved plan, and that the signals and switches functioned as intended. Recommendation was made to the Board in all cases in connection with the necessary Operating Order before the plants were put in operation.

During the year approval was given to the installation of a traffic control system of signals on the Chesapeake and Ohio Railway Company from Mile 6.26 to Mile 74.67, No. 1 Subdivision, Province of Ontario.

Approval was also given to the installation of changes to automatic signals on the Canadian National Railways, the Canadian Pacific Railway Company and the Quebec, North Shore and Labrador Railway Company, in various parts of Canada covering many miles of modernized signalling, the most extensive project being on the Canadian Pacific Railway Company between Pointe au Baril and Delamere, Mile 48.3 to Mile 96.8, Parry Sound Subdivision, Ontario, and from Wetaskiwin to Edmonton, Alberta, Mile 54.7 to Mile 99.1, Leduc

Subdivision; on the C.N.R. from Mile 0.0 to Mile 139.4, Clearwater Subdivision, British Columbia; and on the Great Northern Railway Company from Coldbrook to Endot, British Columbia.

All such signal installations are thoroughly inspected and checked by the Board's Signal Engineer to ensure that the signals are installed in accordance with approved plan, and that they are functioning as intended, before final recommendation was made to the Board for approval of the signals as installed.

BRIDGES

During the year there were 56 railway bridges and 57 overhead bridges and subways approved for construction and reconstruction. The use of heavier motive power has made it necessary to carry out various works capable of safely carrying the heavier rolling stock at speeds greatly in excess of those in existence some years ago. This involves strengthening and reconstruction of bridges and culverts. The plans in connection with these structures were all submitted and were examined by an Engineer of the Board, and recommendation was made to the Board in connection therewith. After the structures were completed, examinations were made in all cases by an Engineer of the Board to ascertain if the structures were built according to the approved plan and safe for the carriage of traffic.

In addition to the above, inspections were made of 74 bridges for safety of operation and recommendations were made for an Order of the Board authorizing the railway companies to operate over them.

CONSTRUCTION AND OPERATION OF BRANCH LINES AND INDUSTRIAL SPURS

The Engineering Department examined applications and plans in connection with the construction and operation over industrial spurs, and recommendations were made for 121 approving Orders.

MAINTENANCE OF TRACK AND STRUCTURES

One of the important duties of the Engineering Department of the Board is the inspection of track conditions to ensure safety of travel over approximately fifty-seven thousand miles of railway trackage in Canada under the Board's jurisdiction. The Board's Engineers throughout the year travelled over and inspected all the Main Lines of railway, and a considerable mileage of branch lines, to ensure the safety of track for public travel. Particularly close and intensive examination was made of any Subdivision where any accident took place to ensure that standard practice and standard precautions had been taken, and the trackage was being properly maintained.

TUNNELS, WATER, GAS, OIL AND SEWER PIPES UNDERGROUND MINE WORKINGS

In addition to the inspections enumerated above, plans were examined in connection with applications for water, gas and sewer pipes passing under the railways. In a number of cases these involved an inspection in the field.

COMPANY PIPE LINES FOR GAS AND OIL

The Pipe Lines Act places under the jurisdiction of the Board all company pipe lines defined as international or inter-provincial.

In 1956, the Board issued a number of Orders approving the plans, profiles, books of reference and crossings of the Westcoast Transmission Company Limited, which, in the previous year, had been authorized to construct a 30-inch diameter gas line from the Pouce Coupe area in the Province of Alberta, to a point on the International Boundary near Huntingdon, British Columbia.

The Peace River Transmission Company Limited obtained leave to construct a natural gas pipe line between Pouce Coupe gas field and the Village of Dawson Creek, and plans, profiles and books of reference of same were approved.

Plans, profiles, books of reference and crossings were also approved for the Westspur Pipe Line Company, which had been authorized to construct its pipe line from Midale, Saskatchewan, to Cromer, Manitoba. This line was tested and authorized by the Board to be opened for the transportation of oil.

The Interprovincial Pipe Line Company looped a portion of its pipe line in the Province of Manitoba, which necessitated the approval of all the crossings of highways, railways, irrigation ditches, underground telegraph, telephone or electric power lines or pipe lines within the limits of the looping.

The Interprovincial Pipe Line Company also obtained leave to construct an oil pipe line from the City of Sarnia to the Village of Port Credit.

The construction of Trans-Canada Pipe Line, which started in the year 1956 west of Winnipeg, necessitated the approval of all plans, profiles, books of reference, as well as approval of all the crossings in that section.

J. E. DUMONTIER,

Director of Engineering.

ENGINEERING DEPARTMENT CONTRIBUTIONS FROM RAILWAY GRADE CROSSING FUND

Protection	Location	Railway	Percent	Contributions \$ cts.
Two flashing light signals and one bell.	Highway No. 11, near Sylvan Lake, mileage 50.58, Brazeau Sub., Alta.	C.N.R.	60	4,839 44
Two flashing light signals and one bell.	Highway No. 11, at Weybom, mileage 294.34, Northern Sub., Ont.	A.C.R.	60	4,260 00
Two flashing light signals and one bell.	Highway at Boundary Creek Stn., mileage 7.89, Sussex Sub., N.B.	C.N.R.	60	4,620 00
Two flashing light signals and one bell.	Highway No. 17, East of Town of Arnprior, mileage 36.8, Renfrew Sub., Ont.	C.N.R.	60	4,470 00
Two automatic short-arm gates, Flashing lights and bell.	Fifth Ave. in Town of Ville St. Pierre, and Dollard Ave., Ville LaSalle, P.Q. (Mileage 5.47, Cornwall Sub., C.N.R., mileage 0.8, South Bank Branch Sub., C.P.R.)	C.N.R. & C.P.R.	60	17,014 90
Subway.	Highway No. 69, Township of Medora, Foot's Bay, mileage 125.4, Bala Sub., Ont.	C.N.R.	60	103,200 00
Subway.	Mercier St., Town of Victoriaville, mileage 55.64, Danville Sub., P.Q.	C.N.R.	60	134,400 00
For two flashing light signals, two short-arm gates and two bells, in lieu of manually controlled gates.	Highway No. 21, at Wyoming, mileage 45.2, Strathroy Sub., Ont.	C.N.R.	60	13,290 00
Two flashing light signals and one bell.	Highway No. 8, Docktown, mileage 45.56, Nashwaak Sub., N.B.	C.N.R.	60	4,320 00
Two flashing light signals, two short-arm gates, one bell.	Davies Ave. at Highway No. 7, near Port Coquitlam, mileage 112.8, Cascade Sub., B.C.	C.N.R.	60	9,780 00
Two flashing light signals and one bell.	Crossing just south of Station at Elora, County of Wellington, mileage 43.62, Fergus Sub., Ont.	C.N.R.	60	3,600 00
Two flashing light signals and one bell.	Crossing b'n., Lots 20 & 21, Con. 4, Twp. Whitechurch, mileage 32.05, Bala Sub., Ont.	C.N.R.	60	3,180 00
Two flashing light signals and one bell.	Secrter Hill, mileage 51.47, Nashwaak Sub., N.B.	C.N.R.	60	3,900 00
Raising approaches and installing automatic protection	Cote Vertu Rd., Town of St. Laurent, P.Q.	C.N.R.	60	20,931 00
Two flashing light signals and one bell.	Crossing at Renforth, mileage 80.54, Sussex Sub., N.B.	C.N.R.	60	4,200 00
Reconstruct bridge.	Austin Road, 1½ miles from Magog, P.Q., mileage 89.0, Sherbrooke Sub.	C.P.R.	30	15,090 00
Two flashing light signals and one bell.	Crossing of Highway No. 9, near Munson Junction, mileage 106, Stettler Sub., Alta.	C.N.R.	60	6,252 00
Two flashing light signals and one bell.	Crossing of Highway No. 38, Town of Laval West, mileage 9.2, Montfort Sub., P.Q.	C.N.R.	60	4,500 00
Reconstruct overhead bridge.	Highway No. 17, Lot 31, Con. "A" & "B", Thunder Bay District, mileage 36.3, Kashabowie Sub., Ont.	C.N.R.	30	46,850 00
Two flashing light signals and one bell.	County Rd. No. 4, Village of Corunna, mileage 65.94, No. 2 Sub., Ont.	C. & O.	60	3,240 00
Two flashing light signals and one bell.	Highway No. 59, near Transcona, mileage 125.95, Minaki Sub., Man.	C.N.R.	60	10,395 00
Two flashing light signals and one bell.	County Road No. 3, Village of Courtwright, near Mile 61, No. 2 Sub., Ont.	C. & O.	60	3,660 00
Changes, circuits of protection.	Ridge Rd. Ridgeway, mileage 9.04, Decanville Sub., Ont.	C.N.R.	60	1,182 00
Two flashing light signals and one bell, with additional circuits.	Broadway Ave. in Village of Port Lambton, mileage 49.23, No. 2 Sub., Ont.	C. & O.	60	3,240 00

Overhead bridge.....	N.E. ¼ of Sec. 34, Twp. 25, R. 27, W.P.N., mileage 52.33, Togo Sub., Man.....	C.N.R.....	60	25,800 00 C.P.R.
Short arm gates and bell.....	Montee St. Jean, in Town of Pointe Claire, P.Q., mileage 14.0, Cornwall Sub., C.N.R. and mileage 8.54, Winchester Sub., C.P.R.....	C.N.R. & C.P.R.....	60	19,005 00 C.N.R. 10,548 00
Improve sight lines and grades.....	Lots 15 & 16, Con. 3, Twp. Amaranth, mileage 9.28, Owen Sound Sub., Ont.....	C.P.R.....	60	3,600 00
Overhead bridge.....	Lot 21, Con. 10, Twp. of Percy, United Counties of Northumberland & Durham, Ont.....	C.N.R.....	60	48,600 00
Two flashing light signals and one bell.....	Highway No. 37, Village of Tweed, mileage 62.53, Havelock Sub., Ont.....	C.P.R.....	60	7,440 00
Subway and overhead bridge.....	Royal York Rd. Dundas St. Twp. of Etobicoke, mileage 7.90 & 7.76 (Royal York Rd. & Dundas St.) Galt Sub., Ont.....	C.P.R.....	60	600,000 00
Overhead bridge.....	Twp. of Litchfield, Pontiac County, mile 54.23, Waltham Sub., P.Q.....	C.P.R.....	60	60,000 00
Two flashing light signals and one bell.....	Sherbrooke St. in Town of Montreal East, mileage 0.73, Dobell Spur, Longue Pointe Sub., P.Q.....	C.N.R.....	60	2,952 00
Two flashing light signals, two short-arm gates and bell.....	Highway No. 59, North Kildonan, mileage 122.61, Keewatin Sub., Man.....	C.P.R.....	60	8,340 00
Two flashing light signals and one bell.....	Ste. Ursule Rd. west of station at Louisville, mileage 61.04, Trois Rivieres Sub., P.Q.....	C.P.R.....	60	4,635 00
Two flashing light signals and one bell.....	41st Ave. in City of Vancouver, B.C.....	Van. & Lulu Isd.....	60	4,920 00
Two flashing light signals and one bell.....	Highway No. 45, east of Taschereau, mileage 69.02, Amos Sub., P.Q.....	C.N.R.....	60	3,180 00
Three flashing light signals and bells.....	33rd St. & Memorial Ave. City of Saskatoon, Sask., mileage 4.51, Saskatoon Terminal Sub.....	C.N.R.....	60	9,000 00
Two flashing light signals and two bells in lieu of two wig wags.....	Argyle St. (Highway No. 6), Village of Caledonia, Ont., mileage 58.6, Dunnville Sd.....	C.N.R.....	60	624 00
Subway.....	Bloor St. West, City of Toronto, mileage 8.9, Galt Sub., Ont.....	C.P.R.....	60	300,000 00
Subway.....	Greenwood Ave., City of Toronto, mileage 330.27, Oshawa Sub., Ont.....	C.N.R.....	60	300,000 00
Two flashing light signals and one bell.....	Ste. Claire Rd. at Quebec West, mileage 3.41, Lairet Sub., P.Q.....	C.N.R.....	60	3,690 00
Reconstruct overhead bridge.....	Birchmont Ave., Twp. of Scarborough, County of York, mileage 326.5, Oshawa Sub., Ont.....	C.N.R.....	30	54,000 00
Two flashing light signals and one bell in lieu of existing wig wag.....	Broadway Ave. in Town of Montreal East, mileage 3.51, Longue Pointe Sub., P.Q.....	C.N.R.....	60	2,394 00
Two flashing light signals, two short-arm gates and one bell, in lieu of present protection.....	Crossing at Wellington St. and crossing of Victoria Ave. City of Hamilton, Ont.....	C.N.R.....	60	16,800 00
Two flashing light signals, two short-arm gates and one bell.....	Fourth Line Road, between Lots 20 & 21, Con. 3, Twp. Trafalgar, mileage 23.12, Oakville Sub., Ont.....	C.N.R.....	60	9,480 00
Two flashing light signals and one bell.....	Highway No. 44, in Parish of St. Paulin, mileage 67.93, Grande Mere Sub., P.Q.....	C.N.R.....	60	4,260 00
Two flashing light signals and one bell.....	Highway No. 4, in Municipality of Portage la Prairie, mileage 62.3, Harle Sub., Man.....	C.N.R.....	60	6,060 00
Two flashing light signals and one bell.....	Crossing of highway just East of White Rock, B.C.....	C.N.R.....	60	1,880 00
Two flashing light signals and one bell, in lieu of present protection.....	16th Ave. in City of Vancouver, B.C., mileage 1.71, Marpole Sub.....	C.P.R.....	60	4,650 00

CONTRIBUTIONS FROM RAILWAY GRADE CROSSING FUND—Continued

Protection	Location	Railway	Percent	Contributions \$ cts.
Two flashing light signals and two bells.	3rd. Ave. in City of Saskatoon, Sask.	C.P.R.	60	3,600 00
Two flashing light signals and one bell.	Highway No. 3, near Castlegar, mileage 1.82, Rossland Sub., B.C.	C.P.R.	60	4,710 00
Two flashing light signals and one bell.	Highway No. 4, in Municipality of Portage la Prairie, Man., mileage 63.68, Gladstone Sub.	C.N.R.	60	6,840 00
Two flashing light signals and one bell.	Front St. Town of Trenton, mileage 1.25, Maynooth Sub., Ont.	C.N.R.	60	3,480 00
Two flashing light signals and one bell with push-button control.	Trenton St. (Frankford Road), Town of Trenton, Ont., mileage 232.70, Oshawa Sub.	C.N.R.	60	3,252 00
Two flashing light signals, two bells, and two short-arm gates.	Junction of 92nd. St. & 106th. Ave., City of Edmonton, Alta.	C.N.R.	60	22,020 00
Two flashing light signals and one bell.	Front St. Town of Trenton, mileage 1.04, Maynooth Sub., Ont.	C.N.R.	60	4,170 00
Reconstruct subway.	Riverside Drive, at Lake Cowichan, mileage 73.16, Cowichan Sub., B.C.	C.N.R.	30	16,800 00
Two flashing light signals, two short-arm gates, in lieu of existing protection.	Highbury Ave., City of London, mileage 75.6, Dundas Sub., Ont.	C.N.R.	60	15,600 00
Two flashing light signals and one bell, with additional light units.	Route No. 3, at Ohio Road, in Town of Shelburne, mileage 52.08, Yarmouth Sub., N.S.	C.N.R.	60	3,960 00
Two flashing light signals and one bell.	Route No. 3 (King St.), Town of Shelburne, mileage 51.03, Yarmouth Sub., N.S.	C.N.R.	60	4,800 00
Divert highway and close crossing.	Markham Rd., in Village of Richmond Hill, mileage 20.85, Bala Sub., Ont.	C.N.R.	60	4,740 00
Two flashing light signals, two short-arm gates with bells.	Highway No. 51, West of St. Eleuthere Stn., from mileage 63.86, Glendyne Sub., to a point at mileage 67.7, Glendyne Sub., P.Q.	C.N.R.	30	79,700 00
Two flashing light signals and one bell.	66th. St. in City of Edmonton, mileage 3.18, East Loop, Edmonton Terminal Sub., Alta.	C.N.R.	60	18,090 00
Reconstruct overhead bridge.	Highway No. 10, Town of Flin Flon, mileage 83.45, Flin Flon Sub., Man.	C.N.R.	60	5,790 00
Two flashing light signals, two short-arm gates and bell.	Maria St. and Beardmore Siding, in Town of Acton, Ont., mileage 35, Brampton Sub.	C.N.R.	30	21,677 00
Install additional light units.	17th. Ave. in City of Calgary, mileage 0.9, Red Deer Sub., Alta.	C.P.R.	60	10,050 00
Two flashing light signals and one bell.	Angus St. in Town of East Angus, mileage 16.9, Quebec Sub., P.Q.	Q.C.R.	60	90 00
Two flashing light signals and one bell.	Highway No. 2, near Peace River, mileage 51.8, Peace River Sub., Alta.	N.A.R.	60	5,010 00
Two flashing light signals and one bell.	Highway No. 6, St. Adelaide, Gaspé County, mileage 48.13, Chandler Sub., P.Q.	C.N.R.	60	5,100 00
Changes to circuits of protection.	Pembroke St. (Highway No. 17), Town of Pembroke, mileage 94.5, Chalk River, Sub., Ont.	C.P.R.	60	1,095 00
Subway and close one crossing.	Highway No. 5, at Sydney River, mileage 110.95, Sydney Sub., N.S.	C.N.R.	60	109,500 00
Improve approach grades and sight lines.	Sunset Ave., Whiteconds, mileage 49.3, Wabamun Sub. Alta.	C.N.R.	60	300 00

Two flashing light signals and one bell with additional light circuits.....	Queen St. in Village of Swansea, Municipality of Metropolitan Toronto, Ont. Belt Line spur, Toronto Terminal, mileage 3.54, Oakville Sub.....	C.N.R.....	60	2,400 00
Two flashing light signals and one bell, with extra light units.....	Thomas St. in Town of Bracebridge, mileage 9.84, Huntsville Sub. Ont.....	C.N.R.....	60	4,470 00
Two flashing light signals and one bell.....	Marion Ave. in the Town of Montreal East, mileage 3.36, Longue Pointe Sub. P.Q.....	C.N.R.....	60	6,084 00
Two flashing light signals, two short-arm gates and one bell, in lieu of existing protection.....	Cremazie Boulevard, in the City of Montreal, mileage 7.24, Park Ave. Sub., P.Q.....	C.P.R.....	60	17,520 00
Widen and improve grades of approach.....	Third public crossing west of Schrippingville, mileage 6.94, Goderich Sub., Ont.....	C.N.R.....	60	1,200 00
Widen approaches of grade and improve grade.....	Crossing near St. Paul, Town of Downie, mileage 4.97, Thorndale Sub., Ont.....	C.N.R.....	60	420 00
Five automatic flashing light signals and two bells, in lieu of Watchman.....	South Ford St. in Town of Stellarton, mileage 0.18, Pictou Sub., N.S. Highway No. 4 (Church St.) Ormstown, mileage 46.16, Massena Sub., P.Q.....	C.N.R.....	60	8,244 00
Two flashing light signals and one bell.....	Highway No. 1, near Moose Jaw, mileage 38.11, Central Butte Sub., Sask.....	C.N.R.....	60	3,864 00
Overhead bridge.....	42nd Ave. in City of Calgary, mileage 2.03, MacLeod Sub., Alta.....	C.N.R.....	60	117,600 00
Two flashing light signals and one bell.....	Highway No. 3, near Michel, mileage 9.46, Cranbrook Sub., B.C.....	C.P.R.....	60	7,530 00
Five flashing light signals and one bell.....	Prince of Wales crossing in City of Ottawa, mileage 1.48, Prescott Sub., Ont.....	C.P.R.....	60	3,870 00
Two flashing light signals and one bell.....	Highway No. 1, near Travellers Rest, mileage 44.57, Kensington Sub., P.E.I.....	C.P.R.....	60	5,142 00
Two flashing light signals and one bell.....	John St. in Township of Clinton, mileage 20.28, Grimsby Sub., Ont.....	C.N.R.....	60	4,500 00
Improve sight lines and grade of approaches and diversion.....	Lawrence Ave. in Town of Scarborough, mileage 58.17, Uxbridge Sub., Ont.....	C.N.R.....	60	6,900 00
Two flashing light signals and one bell.....	Highway No. 3, Oldcastle, mileage 7.92, No. 1 Sub., Ont.....	C.N.R. & O.....	60	3,648 00
Two flashing light signals and one bell in lieu of existing protection.....	Howard Ave. in City of Windsor, mileage 0.57, Windsor Term. Sub., Ont.....	E.T.R.....	60	2,400 00
Two flashing light signals, two short arm gates and bells, in lieu of mechanical gate.....	Thames St. in the Town of Ingersoll, mileage 58.89, Dundas Sub., Ont.....	E.T.R.....	60	3,990 00
Improve approach grades.....	Morningside Ave. in Township of Scarborough, mileage 320.41, Oshawa Sub., Ont.....	C.N.R.....	60	7,680 00
Reconstruct overhead bridge.....	Highway No. 2, in Lot 43, Con. 4, Twp. Brantford, mileage 59.17, Waterford Sub., Ont.....	C.N.R.....	60	678 00
Improve approaches, grades.....	One-quarter mile East of Canfield Junction, mileage 45.22, Dunnville Sub., Ont.....	T.H. & B.....	30	134,100 00
Improve approaches to grade.....	Crossing at West Hill, mileage 319.90, Oshawa Sub., Ont.....	C.N.R.....	60	240 00
Improve sight lines.....	Second crossing south of Limerick Siding, mileage 59.73, St. Quentin Sub., N.B.....	C.N.R.....	60	300 00
Two flashing light signals and one bell.....	Highway No. 71, West of Barwick, mileage 116.3, Fort Frances Sub., Ont.....	C.N.R.....	60	660 00
		C.N.R.....	60	7,344 00

CONTRIBUTIONS FROM RAILWAY GRADE CROSSING FUND—Continued

Protection	Location	Railway	Percent	Contributions \$ cts.
Two flashing light signals and one bell with special circuits.....	First crossing West of McWatters Station, Highway No. 59, mileage 92.83, Val d'Or Sub. Que.	C.N.R.	60	4,230 00
Improve approach grades.....	Crossing just west of Etendale, Township of Toronto, mileage 17.35, Galt Sub., Ont.	C.P.R.	60	1,515 00
Improve approach grade.....	Crossing 1.55 miles west of Canfield, Township of North Cayuga, mileage 47.78, Dunnville Sub., Ont.	C.N.R.	60	980 00
Four flashing light signals and one bell in lieu of wig wag.....	Jane St. and Durrill St., in City of North Bay, mileage 62.09, Alderdale Sub., Ont.	C.N.R.	60	4,518 00
Highway diversion.....	Highway No. 3, near Gilpin, mileage 83.88, Boundary Sub., B.C.	C.P.R.	30	64,800 00
Improve sight lines.....	Municipal District of Sturgeon River, No. 90, mileage 13.2, Coronado Sub., Alta.	C.N.R.	60	150 00
Improving approach grades.....	Marvin Lane, in Township of Augusta, mileage 114.43, Cornwall Sub., Ont.	C.N.R.	60	550 00
Improve sight lines.....	Crossing in Municipal District of St. Paul No. 86, mileage 10.31, Bonnyville Sub., Alta.	C.N.R.	60	360 00
Two flashing light signals and one bell.....	Brassard St. in Town of Roberval, mileage 11.40, Roberval Sub., P.Q.	C.N.R.	60	3,720 00
Two flashing light signals and one bell.....	Highway No. 8, in Parish of Ste. Angelle, mileage 81.16, Lachute Sub., P.Q.	C.P.R.	60	4,824 00
Two flashing light signals and one bell.....	McDougall St. in City of Windsor, mileage 109.83, Windsor Sub., Ont.	C.P.R. & E.T.R.	60	8,466 00
Improve approaches and sight lines.....	Second crossing east of Canfield Junction, mileage 44.6, Dunnville Sub., Township of North Cayuga, Ont.	C.N.R.	60	875 00
Four flashing light signals and one bell.....	Kincardine and Newton Sub. and Main St. in Town of Listowel (mileage 27.73, Newton Sub., Ont.	C.N.R.	60	7,368 00
Two flashing light signals and one bell.....	Highway No. 32, north of Gananoque, mileage 1.88, Thousand Island Rly Sub., Ont.	Thousand I.R.	60	3,216 00
Reconstruct bridge.....	County Road No. 24, County of Brant, mileage 70.29, Waterford Sub., Ont.	T.H. & B.	30	21,450 00
Two flashing light signals and one bell, with special circuits.....	Tecumseh Road, at Forest Ave. in City of Windsor, mileage 2, Main Line Sub., Ont.	E.T.R.	60	4,428 00
Two flashing light signals and one bell.....	Highway No. 23, near Ste. Marie, mileage 104.62, Quebec Sub., P.Q.	A.C.R.	60	4,026 00
Two flashing light signals, two short arm gates, one bell.....	St. Clair Ave. East, at Scarborough, mileage 325.18, Oshawa Sub., Ont.	C.N.R.	60	21,258 00
Reconstruct overhead.....	County Road No. 27, Lot 21, Con. 2 & 3, Twp. Brantford, mileage 17.3, Dutton Sub., Ont.	L.E. & N.	30	19,800 00
Reconstruct overhead.....	County Road No. 27, Lot 21, Con. 2 & 3, Twp. Brantford, mileage 16.92, Dutton Sub., Ont.	L.E. & N.	30	18,900 00
Two flashing light signals and one bell with additional circuits.....	Francois Drive, at Burns Lake, mileage 34.78, Telkwa Sub., B.C.	C.N.R.	60	6,510 00

Improve approach grades.....	Brimley Road, Township of Scarborough, mileage 96.13, Oshawa Sub., Ont.....	C.P.R.....	2,340 00
Two flashing light signals and one bell.....	Orleans St. in City of Montreal, mileage 9.58, Longue Pointe Sub., P.Q.....	C.N.R.....	7,668 00
Two flashing light signals in lieu of wig wags.....	Dundas St. in Town of Trenton, mileage 0.03, Maynooth Sub., Ont.....	C.N.R.....	690 00
Two flashing light signals and one bell.....	Highway No. 34, 1st. public crossing east of Vankleek Hill, mileage 33.79, M. & O. Sub., Ont.....	C.P.R.....	6,600 00
Two flashing light signals and one bell with additional light units.....	University Ave. in City of Fredericton, mileage 21.49, Fredericton Sub., N.B.....	C.P.R.....	8,880 00
Improve sight lines.....	Patrickton crossing in the Municipality of St. Jule de Maria, mileage 57.23, Cascapadia Sub., P.Q.....	C.N.R.....	900 00
Improve sight lines.....	Highway crossing between townships of (aledon and Chinguacousy, mileage 19.3, Grangeville Sub., Ont.....	C.P.R.....	2,220 00
Raise approaches to grade.....	Ontario St. North in Town of Milton, mileage 31.85, Galt Sub., Ont.....	C.P.R.....	2,490 00
Two flashing light signals, two short arm gates, one bell.....	First public crossing east of station at St. Martin Junction, mileage 12.08, Park Ave., Sub., P.Q.....	C.P.R.....	28,440 00
Improve sight lines.....	County Road No. 5, County of Renfrew, mileage 17.34, Locksley Sub., Ont.....	C.N.R.....	180 00
Automatic protection in lieu of existing part-time manually controlled gates.....	Main St. and Leffer St. in City of Portage la Prairie, Man. Harte Sub., Jacques Cartier St. Farnham, P.Q., mileage 6.48, Adirondack Sub.....	C.N.R.....	17,700 00
Changes to protection circuits.....	County Road No. 5, County of Renfrew, mileage 17.34, Locksley Sub., Ont.....	C.P.R.....	510 00
Two flashing light signals, two short arm gates, one bell.....	Crossing at Merselet, mileage 12.8, Kaminstiquia Sub., Ont.....	C.P.R.....	8,100 00
Two flashing light signals and one bell.....	Crossing at Riverdale, mileage 12.74, Hopewell Sub., N.S.....	C.N.R.....	5,280 00
Two flashing light signals and one bell.....	County Road No. 59 near Killalee, mileage 50.60, Galt Sub., Ont.....	C.P.R.....	4,896 00
Two flashing light signals in lieu of wig wags.....	King st. in Town of Trenton, mileage 0.14, Maynooth Sub., Ont.....	C.N.R.....	690 00
Two flashing light signals, two short arm gates, one bell.....	County Road between Lot 27, Con. 3. and Lot 27, Con. 2, Township of Bathurst, 1.4 miles west of station of Perth, Mile 13.0, Belleville Sub., Ont.....	C.P.R.....	12,555 00
Two flashing light signals and one bell on Springvale Ave., one flashing light to protect Ailington.....	Springvale Ave. at Avondale, Halifax County, mileage 1.21, Chester Sub., N.S.....	C.N.R.....	4,020 00
Reconstruct overhead bridge.....	First St. City of Brandon, Man.....	C.P.R.....	5,700 00
Two flashing light signals in lieu of wig wag.....	Highway No. 3 east of Canfield, mileage 39.27, Cayuga Sub., Ont.....	C.N.R.....	774 00
Two flashing light signals and one bell.....	County Road No. 59, West of Alma, mileage 52.97, Fergus Sub., Ont.....	C.N.R.....	4,860 00
Reconstruct overhead bridge.....	Matheson St. in Town of Kenora, mileage 0.05, Keewatin Sub., Ont.....	C.P.R.....	26,600 00
Two flashing light signals and one bell.....	County Road No. 58, at Alma, mileage 52.35, Fergus Sub., Ont.....	C.N.R.....	3,780 00
Improve sight lines.....	Between Con. 9 & 10, Lot 28, in Township of Otonabee, mileage 20.82, Peterborough Sub., Ont.....	C.P.R.....	2,316 00
Changes to circuits of protection.....	Centre St. Town of Napanee, mileage 199.2, Gananoque Sub., Ont.....	C.N.R.....	1,020 00
Two flashing light signals, two short arm gates and one bell.....	Park Road, in the City of Brantford, mileage 21.33, Dundas Sub., Ont.....	C.N.R.....	10,140 00
Three flashing light signals and one bell, to be manually controlled.....	Eleventh St. Southeast, in City of Calgary, mileage 0.34, McLeod Sub., Alta.....	C.P.R.....	5,700 00
Two flashing light signals and one bell.....	County Road No. 79, at Drew, mileage 10.74, Owen Sound Sub., Ont.....	C.N.R.....	3,588 00
Improve overhead bridge.....	Kipp St. in Village of Nobleford, mileage 11.5, Alderside Sub., Alta.....	C.P.R.....	780 00

TRANSPORT COMMISSIONERS FOR CANADA

CONTRIBUTIONS FROM RAILWAY GRADE CROSSING FUND—Continued

Protection	Location	Railway	Percent	Contributions \$ cts.
Two flashing light signals and bell in lieu of wig wag.	Carl's Road, in Township of Crowland, mileage 9.38 from Niagara Falls, Ont.	N.Y.C.	60	2,838 00
Two flashing light signals and one bell.	First crossing north of Alkan Station, mileage 51.24, Bedford Sub., N.S.	C.N.R.	60	4,950 00
Two flashing light signals and one bell.	County Road No. 75, in County of Wellington, mileage 43.98, Brampton Sub., Ont.	C.N.R.	60	3,354 00
Improve sight lines.	First public crossing north of station at Florel Park, mileage 96.5, Newmarket Sub., Ont.	C.N.R.	60	360 00
Improve sight lines.	Wright's Road, in Town of Shelburne, mileage 52.08, Yarmouth Sub., N.S.	C.N.R.	60	390 00
Remove flashing light and gates from Stafford St. and install same at Waverley St.	Stafford St. and Waverley St., in City of Winnipeg, mileage 3.89, Gladstone Sub., Man.	C.N.R.	60	10,505 00
Overhead bridge.	Niedle's crossing, Township of Crowland, mileage FE 13.99, Ont.	N.Y.C.	60	165,900 00
Two flashing light signals and one bell with additional units.	Danforth Road, Scarborough, mileage 60.18, Uxbridge Sub., Ont.	C.N.R.	60	4,128 00
Two flashing light signals, to short arm gates and one bell.	120th. Ave. and 74th. St. in City of Edmonton, Mileage 2.40, East Loop, Alta.	C.N.R.	60	10,200 00
Two flashing light signals, two short arm gates and bell.	Midland Ave. at Scarborough Junction, mileage 324.98, Oshawa Sub., Ont.	C.N.R.	60	20,550 00
Two flashing light signals and bell, with additional light units.	Main St. in the Town of Stayner, mileage 22.9, Meaford Sub., Ont.	C.N.R.	60	7,140 00
Two flashing light signals and one bell.	Crossing of 6th. and 7th. Con. Road, Township of Mooretown, No. 2 Sub., mileage 62, Ont.	C. & O.	60	3,180 00
Improve approaches and install two flashing light signals and bell.	County Road No. 819, between Con. 9 & 10, Township of Normanby, mileage 16.45, Owen Sound Sub., Ont.	C.N.R.	60	460 00
Change to crossing protection.	Barton St. in City of Hamilton, Ont.	T.H. & B.	60	3,348 00
Two flashing lights in lieu of existing wig wags.	Crossing of Highway No. 3, West of Paynes, mileage 6.54, Chatham Sub., Ont.	C.N.R.	60	714 00
Two flashing light signals, two short arm gates and bell.	First crossing East of Station at Zorra, Township of West Zorra, mileage 94.8, Galt Sub. and 4.27, St. Mary's Sub., Ont.	C.P.R.	60	20,280 00
Overhead bridge.	97th. St. in City of Edmonton, Alta.	C.N.R.	60	270,600 00
Overhead bridge.	Highway No. 35, in Township of Manvers, County of Durham, mileage 45.66, Peterboro Sub., Ont.	C.P.R.	60	120,240 00
Divert railway and eliminate two crossings.	Divert line between mileages 55.4 and 56.1, Hopewell Sub., near Merigomish, N.S.	C.N.R.	60	71,400 00
Two flashing light signals and one bell.	Highway No. 2, near Aldersyde, Alta. mileage 84.22, Aldersyde Sub., Alta.	C.P.R.	60	4,710 00

Two flashing light signals and one bell.....	Highway No. 27, West of Cookshire Station, mileage 49.54, Megantic Sub., P.Q.....	C.P.R.....	60	4,245 00
Two flashing light signals and one bell.....	Crossing just south of station at Beeton, County of Simcoe, mileage 38.89, MacTier Sub., Ont.....	C.P.R.....	60	4,635 00
Two flashing light signals and one bell.....	Highway No. 52, at Cantic, mileage 41.77, Rouse's Point Sub., P.Q.....	C.N.R.....	60	6,768 00
Two flashing light signals, two short-arm gates and one bell.....	North Queen St. Township of Etobicoke, mileage 11.42, Galt Sub., Ont.....	C.P.R.....	60	21,595 00
Three flashing light signals and one bell, in lieu of existing protection.....	Mechanic St. in Town of Bath, mileage 81.51, Shogomoc Sub., N.B.....	C.P.R.....	60	3,753 00
Two flashing light signals and one bell in lieu of existing wig wag.....	Secondary Road No. 607, mileage 84.83, Parry Sound Sub., $\frac{1}{2}$ mile West of Bigwood Station, Ont.....	C.P.R.....	60	1,200 00
Improve sight lines and grades of approaches.....	Crossing in Parish of Deschambault, County of Portneuf, mileage 121.9, Quebec Sub., P.Q.....	C.P.R.....	60	1,224 00
Two flashing light signals and one bell.....	Highway No. 24, south of Galt, mileage 1.1, Port Dover to Galt Sub., Ont.....	L.E. & N.....	60	5,328 00
Improvement to view.....	Road between Con. 10 & 11, Township of Rawdon, County of Hastings, mileage 77.8, Hayvelock Sub. Ont.....	C.P.R.....	60	1,005 00
Two flashing light signals and one bell.....	Sheppard Ave. in the Township of North York, mileage 6.52, MacTier Sub., Ont.....	C.P.R.....	60	8,160 00
Two flashing light signals and one bell.....	Highway No. 13, in Parish of Wickham, mileage 49.65, Drummondville Sub., P.Q.....	C.P.R.....	60	4,455 00
Two flashing light signals and one bell, with additional light units.....	Highway No. 105, (Red Lake Rd.) mileage 71.2, Quibell Sub., Ont.....	C.N.R.....	60	6,840 00
Two flashing light signals and one bell.....	St. David St. (Highway No. 6) in Town of Fergus, mileage 26.35, Elora Sub., Ont.....	C.P.R.....	60	4,515 00
Two flashing light signals and one bell.....	Highway No. 1, near Regina, mileage 111.65, Lewvan Sub., Sask.....	C.N.R.....	60	6,150 00
Two flashing light signals and one bell.....	Robert St. in the City of North Battleford, mileage 81.5, Langham Sub., Sask.....	C.N.R.....	60	4,830 00
Two flashing light signals and one bell.....	Highway No. 5, East of Lloydminster, Sask. mileage 82.5, Blackfoot Sub., Sask.....	C.N.R.....	60	5,160 00
Improve sight lines.....	Red Rock Road, crossing, Utopia, mileage 43.35, Shore Line Sub., N.B.....	C.P.R.....	60	150 00
Two flashing light signals and one bell.....	Highway No. 69, (Byng Inlet crossing) mileage 62.04, Parry Sound Sub., Ont.....	C.P.R.....	60	5,385 00
Two flashing light signals and one bell in lieu of Watchman.....	Gilmore Road, in Town of Fort Erie, mileage 1.0, Dunnville Sub., Ont.....	C.N.R.....	60	5,412 00
Two flashing light signals and one bell.....	Highway No. 2, in Municipality of St. Honore, mileage 25.6, Temiscouata Sub., P.Q.....	C.N.R.....	60	4,440 00
Two flashing light signals, two short arm gates and one bell.....	First public crossing south of St. Constant Station, mileage 35.96, Adirondack Sub., P.Q.....	C.P.R.....	60	15,060 00
Two flashing light signals and one bell.....	Highway No. 11, near Caraqueet, mileage 49.46, Caraqueet Sub., N.B.....	C.N.R.....	60	3,960 00
Two flashing light signals and one bell.....	Crossing at Atholville, mileage 2.63, Matapedia Sub., N.B.....	C.N.R.....	60	4,140 00
Two flashing light signals and one bell.....	Highway No. 6 at Paspebiac, mileage 2.93, Chandler Sub., P.Q.....	C.N.R.....	60	4,560 00
Two flashing light signals and one bell.....	Highway No. 11, (Ste. Anne de Bocuag) near Caraqueet, mileage 45.45, Caraqueet Sub., N.B.....	C.N.R.....	60	4,440 00

CONTRIBUTIONS FROM RAILWAY GRADE CROSSING FUND—*Concluded*

Protection	Location	Railway	Percent	Contributions \$ cts.
Two flashing light signals, two short arm gates and one bell.....	County Road No. 15, north of Village of Maitland, mileage 120.48, Cornwall Sub., Ont.....	C.N.R.....	60	11,310 00
Two flashing light signals, two short arm gates and one bell.....	Crossing of Third Line in Township of Trafalgar, mileage 24.42, Oakville Sub., Ont.....	C.N.R.....	60	13,920 00
Two flashing light signals, two short arm gates and one bell.....	County Road No. 17, Stoney Point, mileage 81.10, Chatham Sub., Ont.....	C.N.R.....	60	10,536 00
		Total.....	\$	3,924,096 34
In addition to the above contributions, grants from the Railway Grade Crossing Fund were increased from forty percent to sixty percent of the cost of construction, as provided for in the amendment to Section No. 265 of the Railway Act, dated June 28, 1955, amounting to.....				
		Total.....	\$	1,437,376 75
		Total.....	\$	5,361,473 09

DISTRIBUTION OF CONTRIBUTIONS BY PROVINCES

BRITISH COLUMBIA.....	\$ 195,338 75
ALBERTA.....	497,762 94
SASKATCHEWAN.....	204,650 00
MANITOBA.....	106,960 00
ONTARIO.....	3,415,585 72
QUEBEC.....	679,578 68
NEW BRUNSWICK.....	43,393 00
NOVA SCOTIA.....	212,544 00
PRINCE EDWARD ISLAND.....	5,660 00
NEWFOUNDLAND.....	—
	<u>\$ 5,361,473 09</u>

THE STATEMENT BELOW SHOWS THE DIFFERENT WORKS WHICH WERE APPROVED FOR CONSTRUCTION BY ORDER OF THE BOARD ON RECOMMENDATION OF THE ENGINEERING DEPARTMENT AFTER STUDY OF THE APPLICATIONS AND PLANS, CHECKING OF ESTIMATES, INVESTIGATION OF COMPLAINTS AND ACCIDENTS, AND IN MANY CASES INSPECTION ON THE GROUND AND CONFERENCES WITH THE INTERESTED PARTIES, DURING THE YEAR 1956.

Province	Highway Crossings Approved	Highway Crossings Closed	Widen Crossings	Construction and Operation over Branch Lines and Industrial Spurs	Pedestrian Crossings	Railway Bridges	Overhead Bridges and Subways	Highway Diversions	Less than Standard Clearances	Interlocking Plants and Changes to Interlocking Plants	Operation through Interlockers	Crossings Protected by Flashing Light Signals and Bells	Changes to Operating Circuits of Flashing Light Signals, and Bells, and Wig Wags	Electrically Controlled Gates and Flashing Lights	Wire Crossings of Railways or Company Pipe Lines	Water, Gas, Oil and Sewer Pipes over and under Railways	Improve Sight Lines and Approach Grades	Location of Telephone Lines	Exemption from Fencing and Cattle Guards	Approval and changes to C.T.C. and Block Signals	Pipe Crossings under and over Company Pipe Lines	Location of Company Pipe Lines	Route Map, Oil or Gas Lines	Relocate Railway Lines	Railway Connections	Construction of Oil or Gas Lines under Rivers	Location of Railway Lines	Road Crossings over Company Pipe Lines	Approval of Operation over and under Bridges	Abandonment of Operation of Railway Lines	Opening for Carriage of Traffic	Manually Controlled Gates	Mining under Railways	Tunnels	Opening for Transportation of Oil (Pipe Lines)	Drilling of Wells	Crossings protected by Flagman	Operation through Rocksheds	Ditches across Pipe Lines	Totals	
British Columbia...	28	7	15	17	8	1	4	1	4	1	...	6	1	1	11	1	3	9	20	1	2	1	9	...	2	13	...	1	...	1	2	1	...	165
Alberta...	22	3	6	19	2	8	5	...	5	...	1	5	1	4	1	3	8	2	9	3	1	2	...	8	6	2	...	10	1	121
Saskatchewan...	34	7	12	18	2	1	1	...	1	...	8	6	5	...	12	2	7	1	2	25	2	6	162
Manitoba...	15	2	5	8	1	7	2	2	4	4	2	3	1	8	4	...	10	...	1	4	5	1	1	93
Ontario...	45	16	21	34	5	14	29	...	18	5	6	54	30	22	3	5	24	15	5	11	31	3	1	1	1	1	12	27	2	...	13	...	1	443	
Quebec...	28	6	9	20	3	10	5	3	9	1	...	26	10	9	...	1	2	1	1	4	1	163
New Brunswick...	4	3	2	4	2	3	5	...	5	8	1	2	...	6	3	1	45	
Nova Scotia...	3	4	...	3	1	3	1	3	...	3	1	6	1	2	1	3	32
P.E. Island	1	1	1	...	1	...	1	1	1	6	
Newfoundland...	2	1	2	...	2	5	
Totals	182	50	55	121	12	56	57	5	47	17	18	115	46	39	15	21	34	16	36	25	51	61	3	9	2	14	2	24	74	3	2	1	0	3	13	1	3	1	1	1,235	

APPENDIX "E"

OTTAWA, ONTARIO,
February 13, 1957.

Mr. C. W. RUMP,
Secretary,
Board of Transport Commissioners,
OTTAWA, ONTARIO.

DEAR SIR:

1. I submit for the Board's Fifty-Second Report, the Annual Report of the Operating Department for the year ended December 31, 1956.

2. One of the important functions of the Board's Operating Department is to promote greater safety in train operation for the protection of the travelling public as well as for the safety of railway employees, whose duties are associated with the operation of trains.

In this connection, informal conferences attended by Railway Operating Officers and Legislative Representatives of the Railway Brotherhoods, are convened periodically by this department. Matters relating to the protection of the public and the safety of railway employees engaged in railway operation are discussed and it is felt that good results are obtained in the promotion of greater uniformity in the application of Safety Rules and principles on railways under the Board's jurisdiction.

During the year 1956, a Conference was held in the Board's Court Room at Ottawa on March 5th and 6th. Representatives from nine Railway Companies, five Railway Labour Organizations and the Railway Association of Canada, were in attendance.

3. For convenience, the report is divided as follows:

- Part I—Operating
- Part II—Mechanical
- Part III—Flammable Liquids, Gases and Explosives
- Part IV—Fire Prevention

4. PART I—OPERATING

With a view to keeping abreast of new developments in the safety field, representatives of the department attended the Annual National Safety Council Conference held in Chicago in October 1956.

Another of the principal functions of this department is to ensure that railways under its jurisdiction erect, operate and maintain stations upon their lines with good and sufficient accommodation and facilities for the handling of traffic.

During the year, the railways submitted 40 applications to the Board requesting authority to replace station agents with caretakers or remove caretakers. In each case, an investigation was conducted on the ground by an officer of the department at which time representatives of municipalities and the local citizens were provided an opportunity to present their views, following which, a report and recommendation was submitted to the Board for its consideration.

Numerous complaints from the public regarding insufficient service and/or accommodation at stations were also investigated.

During the year, this department dealt with 52 applications submitted by the railways dealing with major reductions or discontinuance of passenger train and mixed train services. These applications were investigated on the ground by an officer of the department and, after consultation with the parties affected, reports and recommendations were submitted to the Board.

Several complaints from the public, pertaining to inadequacy of train service, were dealt with in a similar manner.

Four applications for permission to abandon railway lines involving 67.85 miles of track were investigated. Each of these applications involved joint investigation with officers of the Board's Engineering Department and, after investigation on the ground, reports and recommendations were submitted to the Board.

During the year, 3,289 accidents were investigated of which 598 occurred at highway crossings. Highway crossing accidents involving injuries necessitated an inspection of 598 public crossings with subsequent reports and recommendations to the Board. In 132 cases, recommendations were made with a view to providing additional safeguards at these crossings.

Six of the above mentioned accidents, resulting in seven deaths and eleven injuries, involved collisions between trains and highway vehicles handling gasoline, oil products, and other dangerous commodities.

Review of the Provincial Legislation governing the movement of vehicles carrying commodities of this nature over unprotected crossings indicates that seven Provinces have no regulations in this respect.

For the purpose of carrying out the work of the Operating Department, Operating Inspectors make observations and conduct investigations in the course of their travels over their assigned territory. Numerous reports and recommendations are submitted with a view to improving and/or correcting conditions detrimental to safety and public convenience.

Detailed statistical data for the year 1956 is given in statements Nos. 1 to 9 (inclusive) appended hereto.

5.

PART II—MECHANICAL

Approvals—Special Problems

In addition to the supervision of field staff activities, the technical officers at Headquarters throughout the year were called on to examine, assess and make recommendations with respect to various types of new or untried railway equipment. Moreover, they were required to engage in a number of special problems having to do with exhaust fumes, freight cars of radical design, air pollution, train air brake testing, the safe movement of commodities loaded on open top cars, etc.

In addition to the above, the staff undertook the investigation of complaints of unsafe and faulty equipment from railway labour organizations.

Inspection Activities

The tables and statistics which accompany this report reveal that the Mechanical Inspectors had an active year. The work of safety entailed examination of a great variety of steam and diesel locomotives, freight and passenger train cars, stationary boilers and steam generators, fire protective appliances,

safety appliances, pressure vessels, air brake apparatus, headlights, etc. Correction of numerous defects and violations of Board rules and instructions were arranged with appropriate railway officers.

Inspectors rode more than 500 locomotives operating in all parts of the country in order to ensure compliance with Board rules and recognized safety practices.

Motive Power

Presently there are some 5,154 locomotives registered with the Board. In accordance with the requirements of various General Orders, railways submitted some 51,556 certified annual and monthly inspection and repair reports. Locomotive inspections, including examination of fire preventive appliances by Provincial Government representatives, amounted to 9,134; 3,260 units were found to be defective and the number of defects totalled 6,089.

Under the terms of General Order No. 473, railways made applications for extension of time for removal of flues on behalf of some 400 steam locomotives. Nearly all applications were granted on the recommendation of the Board's Inspectors following personal examination of boilers and their interiors.

Motive Power Situation—Major Railways

The accompanying table shows that during 1956 the major railways acquired some 434 diesel locomotives, 16 self-propelled rail diesel cars, and retired approximately 400 steam locomotives.

A review of the situation indicates that while dieselization of Canada's major railways is making progress, an almost continuous rise in railway business precludes the rapid displacement of steam locomotives. It appears that despite heavy increases in diesel inventories, substantial numbers of steam locomotives will remain in service for some time to come.

Year	Steam Locomotives					
	Coal Fired		Oil Fired		Total	
	C.N.R.	C.P.R.	C.N.R.	C.P.R.	C.N.R.	C.P.R.
1952.....	2,134	1,361	283	261	2,417	1,622
1953.....	1,932	1,329	370	265	2,302	1,594
1954.....	1,702	1,262	431	260	2,133	1,522
1955.....	1,462	1,154	433	250	1,895	1,404
1956.....	1,319	991	386	214	1,705	1,205

Year	Diesel-Electric Locomotives					
	Road Locos.		Switchers		Total	
	C.N.R.	C.P.R.	C.N.R.	C.P.R.	C.N.R.	C.P.R.
1952.....	202	159	193	133	395	292
1953.....	277	217	226	148	503	365
1954.....	349	311	266	148	615	459
1955.....	477	372	306	184	783	556
1956.....	721	470	384	198	1,105	668

Stationary Boilers

Currently, about 1,000 stationary boilers are subject to the Board's authority. During the year, 2,000 annual and semi-annual certified reports were submitted by the various railways. Inspectors examined some 746 individual Boilers and rendered 1,089 fire protective appliance reports.

Car Equipment

Car Inspectors examined some 75,000 freight cars; 6,242 were found with defects and some 8,172 defects were recorded. 8,114 passenger train cars were examined, 802 defective, total defects being 1,091.

10,930 freight cars were examined for correct tare weight and 302 were found overdue for reweighing.

Railway Companies now have 4,946 air storage vessels registered with the Board. 4,641 reports of test and inspection were submitted during 1956.

Motive Power Units Other Than Steam

Regulations with respect to diesel-electric, electric, etc., locomotives and steam generators are being developed. The matter is involved and complicated by the fact that equipment used in International service is subject to the rules of the Interstate Commerce Commission of the United States. However, there has been some contact with officials of the Commission with the object of arranging inspection rules and cab certification cards which will facilitate the movement of locomotives at border points.

Statistics

Detailed statistical data for the year 1956 is shown in statements Nos. 10 to 14 (inclusive) appended hereto.

6. PART III—FLAMMABLE LIQUIDS, GASES AND EXPLOSIVES

Flammable Liquids and Gases: Handling and Storage on and Adjacent to Railway Property

On June 15, 1956, General Order No. 823, which governs installations for the handling and storage of flammable liquids on or adjacent to railway property when served by rail, was issued.

General Order No. 823 rescinded General Order No. 716 which had previously regulated such installations.

Under the provisions of General Orders Nos. 716 and 823, 434 applications were received for approval for bulk oil installations or additions or alterations thereto. These, together with 9 applications held in abeyance from 1955, were disposed of as follows:

Approved and Orders Issued.....	403
Cancelled or Rejected.....	5
Held in Abeyance or Orders Issuing.....	21
Temporary Approval or Short Duration.....	5
	<hr/> 434

The foregoing applications covered the location of 1,250 storage tanks having a total capacity of 84,827,875 gallons. Of these applications, 138 covered new installations.

Thirty-three applications were received during 1956 requesting approval of installations for the handling and storage of liquefied petroleum gas. These applications covered the installation of 44 storage tanks with a total capacity of approximately 1,148,300 Imperial gallons.

During the year, interest continued in the utilization of Anhydrous Ammonia for Agricultural purposes. Four Orders issued covering the installation of four permanent storage tanks with a total capacity of 100,000 gallons. Temporary permission was also granted to unload Anhydrous Ammonia into tank trucks at several locations.

Plans of all the above installations were examined by the Board's Inspectors and, in addition, many field inspections were made during the year to ensure compliance in accordance with approved plans and safe practices.

*Regulations for the Transportation of Explosives and
Other Dangerous Articles in Rail Freight and
Rail Express Service*

Supplement No. 5 to the above Regulations was issued April 1, 1956. Supplement No. 6, which will amalgamate and rescind existing Supplements Nos. 3, 4 and 5, together with additional changes and additions to these Regulations, has been assembled and forwarded to the Printer. This Supplement should be issued by May 1, 1957.

Late in 1956, the Board employed an additional Inspector who will make inspections of installations for the handling and storage of flammable liquids and liquefied petroleum gases on railway property.

7.

PART IV—FIRE PREVENTION

Weather Conditions

Weather conditions in Eastern Canada were on the whole quite favourable to fire prevention and some of our Eastern Provinces experienced one of the lightest fire seasons on record. However, such was not the case in the northern and western portions of Canada. Starting in Northern Ontario and extending through Northern Manitoba and Saskatchewan into Alberta and British Columbia, several periods of high fire hazard were experienced during 1956.

Fire Statistics

Detailed statistics are shown in Statement No. 15 appended hereto from which it will be noted that 300 fires occurred during the fire season of 1956 chargeable to Railway operations with approximately 14,000 miles of railway classified as forested territory. These fires burned 3,438 acres. In addition, 82 fires were also reported as originating and burning in ties in the track which did not spread or cause damage other than to track ties.

Railway Fire Patrols

Fire Patrol requirements under the terms of paragraph 29 of General Order No. 548 were addressed to all railways concerned.

Statistics showing forested mileage along the railways upon which patrols are prescribed are as follows:

	Miles
Special section patrols prescribed on.....	2,163.67
Special power speeder patrols.....	2,080.60
Special section patrols on request.....	1,970.60
Special velocipede patrols.....	92.90
Other special patrols.....	12.10
Mileage in forested territory on which no special patrol required, detection, reporting and extinguishing of fires being part of the regular duties of section forces and other employees.....	7,611.94
Total.....	13,931.81

Inspection

Under the co-operative arrangements inaugurated in 1915 within the various Federal and Provincial Forest Services, 296 officers of such services were under appointment as Inspectors of the Board during the year.

Of the above, 59 have received special training and were appointed as Locomotive Fire Appliance Inspectors.

During the 1956 fire season, these Locomotive Fire Appliance Inspectors examined the fire prevention appliances on 1,068 locomotives, 74 of which were found to be defective involving 93 defects.

Fireguards

Railway	Mileage both sides of track to be accounted for exclusive of approved exemptions	Fireguard mileage constructed or maintained during year	Percentage completed
Canadian National.....	2,825.1	878.2	31.1
Canadian Pacific.....	3,181.8	1,772.4	55.7
Northern Alberta.....	17.8	16.2	91
Totals.....	6,024.7	2,666.8	44.2

R. M. MACDONALD,

Director of Operation.

OPERATING DEPARTMENT

STATEMENT NO. 1.—PASSENGERS, EMPLOYEES AND OTHERS KILLED AND INJURED
ON RAILWAYS UNDER THE BOARD'S JURISDICTION FOR THE YEAR ENDED
DECEMBER 31st, 1956

Name of Railway	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Canadian National.....	4	267	43	1,059	175	446	1,467	222	1,772
Canadian Pacific.....	3	329	20	1,111	123	320	1,618	146	1,760
Algoma Central & Hudson Bay.....		1		9	1	1	12	1	11
British Columbia Elec- tric.....		1				7	8		8
Chesapeake & Ohio.....					5	6	9	5	6
Dominion Atlantic.....		3		13	1	8	24	1	24
Esquimalt & Nanaimo...				3	2	7	9	2	10
Essex Terminal.....						8	5		8
Grand River.....				1			1		1
Great Northern.....		1		1	1	7	8	1	9
Lake Erie & Northern...					1		1	1	
London & Port Stanley...		4		1		1	1		6
Montreal & Southern Counties.....				1		2	2		3
Midland Rly. of Manitoba				1			1		1
Napierville Junction.....					1		1	1	
New York Central.....			1	5	9	17	23	10	22
Niagara, St. Catharines & Toronto.....					1	1	2	1	1
Nipissing Central.....				1	1	6	5	1	7
Northern Alberta.....		3	2	47	1	9	60	3	59
Oshawa.....						1	1		1
Quebec Central.....				5	7	7	13	7	12
Quebec North Shore & Labrador.....			1	2			2	1	2
Sydney & Louisburg.....					1		1	1	
Thousand Islands.....						2	1		2
Toronto, Hamilton & Buffalo.....				3	3	6	11	3	9
Toronto Terminals.....				9		12	3		21
Totals.....	7	609	67	2,272	333	874	3,289	407	3,755

STATEMENT No. 2—PASSENGERS, EMPLOYEES AND OTHERS KILLED AND INJURED,
AND NATURE OF ACCIDENTS, FOR YEAR ENDED DECEMBER 31st, 1956.

Classification of accident	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Derailment.....		72	3	53		4	35	3	129
Collision head-on.....	1	62	4	35			8	5	97
Collision rear-end.....			2	31			16	2	31
Collision, miscellaneous.....			2	13			3	2	13
Collision with cars account open switch.....	1	19		5			3	1	24
Equipment struck in yard during switching or transfer movement in- cluding sideswipes of individual equipment in yards.....		10		61		13	28		84
Sideswipe.....			4	18			10	4	18
Public Highway crossing protected by gates— manual.....					6	15	10	6	15
Public Highway crossing protected by gates— automatic.....				1		3	4		4
Public Highway crossing protected by bell.....					1	8	8	1	8
Public highway crossing protected by bell and wigwag.....		1		3	21	58	48	21	62
Public highway crossing protected by flashing lights and bell.....					20	84	66	20	84
Public highway crossing protected by other types of protection.....						1	1		1
Public highway crossing protected by watchmen						4	3		4
Public highway crossing unprotected.....		9	2	55	162	543	458	164	607
Private crossing.....				7	21	27	37	21	34
Trespassing.....					95	72	163	95	72
Working on or about engine Miscellaneous.....		18	5	148			148		148
				223	1	8	249	6	249
Adjusting couplers, coupl- ing and uncoupling.....			1	51			52	1	51
Run down by engine or car between stations.....			4	2	1	1	8	5	3
Handcar—accident caused by handcar, motor or velocipede.....			5	155			125	5	155
Handcar, motor-car, velo- cipede struck by train..			9	45			34	9	45
Crawling between cars, over couplers.....				7			7		7
Passing between cars, be- tween couplers.....				1	1		2	1	1
Struck by engine or cars on adjoining track.....				13			13		13
Struck by switch stand, water spout, mail crane or other projection.....				18			18		18
Crushed between cars and buildings, lumber piles..			1	9			10	1	9
Explosion of locomotive boiler and crown sheets damaged.....			1	1			1	1	1
Getting on and off pas- senger trains.....	1	69		1			71	1	70
Injured when taking coal or water.....				26			26		26
Rock slides, or other ob- structions on track.....				6			3		6
Rough coupling.....		5		54		6	57		65
Riding on pilot or foot- board of engine.....			1	4			5	1	4

STATEMENT No. 2—PASSENGERS, EMPLOYEES AND OTHERS KILLED AND INJURED,
AND NATURE OF ACCIDENTS, FOR YEAR ENDED DECEMBER 31st, 1956.—*Concluded*

Classification of accident	Passengers		Employees		Others		Total		
	Killed	Injured	Killed	Injured	Killed	Injured	Acci- dents	Killed	Injured
Obstructions, overhead and on ground.....			1	30	1	1	33	2	31
Repairing cars on repair track when moved.....				3			1		3
Falling off top of car.....			1	23			24	1	23
Falling between cars.....			1	5			6	1	5
Application and handling of air brakes, starting and stopping of trains, adjusting slack.....		42		164		3	177		209
Employees getting off train.....			3	291			294	3	291
Employees boarding train.....			2	102			104	2	102
Slipping on ice.....				67			67		67
Doors closing and other minor accidents in bag- gage cars and coaches...		281		158		1	434		440
Run down by engine or cars at stations or in yards.....		3	9	33	1	5	51	10	41
Caught by engine or car while throwing switch...				1			1		1
Falling off side or end ladders or cars.....				68		1	69		69
Handbrake — accidents while working hand- brake.....			2	128			127	2	128
Handling freight or bag- gage.....				14			14		14
Loading and unloading O.C.S. materials.....				24			24		24
Work train equipment.....			1	12	1		14	2	12
Cars moved while being loaded or unloaded.....				2		13	14		15
Carmen working on or under cars on running track when moved.....				1			1		1
Chaining or unchaining cars.....			1				1	1	
Coupling or uncoupling hose.....				19			19		19
Turning angle-cock.....				21			21		21
Coach window falling.....		2					2		2
Loads shifting in transit or switching.....			1	12			12	1	12
Falling or jumping off pas- senger train between stations.....	4	8		1		1	14	4	10
Cars running away not under control.....			1	22	1	2	17	2	24
Washout.....				5			1		5
Individual derailment of equipment in yard tracks.....				11			10		11
Accidents as a result of handling explosives & other dangerous articles.....		7		3			1		10
Fires occurring in pas- senger train equipment...				3			3		3
Accidents as a result of train breaking in two...		1		3			3		4
Totals.....	7	609	67	2,272	333	874	3,289	407	3,755

REPORT OF THE COMMISSIONERS

Classification of Accident	C.N.R.			C.P.R.			Miscellaneous Railways			Total		
	Acci- dents	Killed	Injured	Acci- dents	Killed	Injured	Acci- dents	Killed	Injured	Acci- dents	Killed	Injured
Derailment.....	26	3	112	8	.....	.....	16	.....	.....	35	3	129
Collision head-on.....	7	4	84	1	.....	.....	13	.....	.....	8	5	97
Collision rear-end.....	14	1	26	2	1	.....	5	.....	.....	16	2	31
Collision, miscellaneous.....	2	1	8	1	1	.....	5	.....	.....	3	2	13
Collision with cars account open switch.....	3	1	24	.....	.....	.....	.....	.....	.....	3	1	24
Equipment struck in yard switching or transfer movement including sideswipes of individual equipment in yards.....	16	.....	27	10	.....	.....	37	.....	20	28	.....	84
Sideswipe.....	6	2	10	3	2	.....	7	.....	1	10	4	18
Public highway crossing protected by gates—manually.....	10	6	15	.....	.....	.....	.....	.....	.....	10	6	15
Public highway crossing protected by gates—automatic.....	2	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	4
Public highway crossing protected by bell.....	1	.....	.....	5	1	.....	4	.....	2	8	1	8
Public highway crossing protected by bell and wigwag.....	21	9	29	12	5	.....	15	7	18	48	21	62
Public highway crossing protected by flashing lights and bell.....	39	12	56	20	6	.....	22	2	6	66	20	84
Public highway crossing protected by other types of protection.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Public highway crossing protected by watchman.....	3	.....	4	.....	.....	.....	.....	.....	1	1	.....	1
Public highway crossing unprotected.....	242	84	308	161	65	.....	232	55	67	458	164	607
Private crossing.....	22	14	18	11	4	.....	15	4	3	37	21	34
Trespassing.....	83	48	39	68	40	.....	28	12	7	163	95	172
Working on or about engine.....	69	.....	69	70	.....	.....	70	9	9	148	.....	148
Miscellaneous.....	95	4	97	142	2	.....	140	12	12	249	6	249
Adjusting couplers, coupling and uncoupling.....	25	1	24	26	.....	.....	26	1	1	52	1	51
Run down by engine or car between stations.....	4	2	2	4	3	.....	1	.....	.....	8	5	3
Handcar—accidents caused by handcar, motor or velocipede.....	67	5	95	56	.....	.....	58	2	2	125	5	155
Handcar, motor-car, velocipede struck by train.....	21	5	26	10	3	.....	16	3	3	34	9	45
Crawling between cars, over couplers.....	2	.....	2	4	.....	.....	4	1	1	7	.....	7
Passing between cars, between couplers.....	2	1	5	.....	.....	.....	.....	.....	.....	2	.....	2
Struck by engine or cars on adjoining track.....	5	.....	1	6	.....	.....	6	2	2	13	1	13
Struck by switch stand, water spout, mail crane or other projection.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Crushed between cars and buildings, lumber piles.....	2	.....	2	16	.....	.....	16	.....	.....	18	.....	18
Explosion of locomotive boiler.....	4	.....	4	5	1	.....	4	1	1	10	1	9
Getting on and off passenger trains.....	.....	.....	.....	1	1	.....	1	.....	.....	1	1	1
Injured when taking coal or water.....	14	.....	14	55	1	.....	54	2	2	71	1	70
Rock slides, or other obstructions on track.....	17	.....	17	4	.....	.....	4	5	5	26	.....	26
Rough coupling.....	36	1	40	2	1	.....	4	.....	.....	3	.....	6
Riding on pilot or footboard of engine.....	3	.....	3	19	.....	.....	22	2	3	57	.....	65
Obstructions, overhead and on ground.....	.....	.....	.....	1	.....	.....	1	1	.....	5	1	4
Repairing cars on repair track when moved.....	15	1	14	16	1	.....	15	2	2	33	2	31
	.....	.....	.....	1	.....	.....	3	.....	.....	1	.....	3

STATEMENT No. 3—NATURE OF ACCIDENTS AND NUMBER OF PERSONS KILLED AND INJURED ON RAILWAYS FOR YEAR ENDED DECEMBER 31st, 1956.—*Concluded*

Classification of Accident	C.N.R.			C.P.R.			Miscellaneous Railways			Total		
	Acci- dents	Killed	Injured	Acci- dents	Killed	Injured	Acci- dents	Killed	Injured	Acci- dents	Killed	Injured
Falling off top of car.....	14	1	13	8	.....	.....	.....	.....	.....	24	1	23
Falling between cars.....	2	1	1	4	.....	.....	.....	.....	.....	6	1	5
Application and handling of air brakes, starting & stopping of trains, adjusting slack.....	59	.....	61	117	.....	.....	.....	.....	.....	177	.....	209
Employees getting off train.....	122	3	119	163	.....	.....	.....	.....	.....	294	3	291
Employees boarding train.....	35	1	34	63	.....	.....	.....	.....	.....	104	2	102
Slipping on ice.....	21	.....	21	42	.....	.....	.....	.....	.....	67	.....	67
Doors closing and other minor accidents in baggage cars and coaches.....	169	.....	170	252	.....	.....	.....	.....	.....	434	.....	440
Run down by engines or cars at stations or in yards.....	20	5	15	25	.....	5	.....	.....	.....	51	10	41
Caught by engine or car while throwing switch.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	1
Falling off side or end ladders or cars.....	18	.....	18	48	.....	.....	.....	.....	.....	69	.....	69
Handbrake—accidents while working handbrake.....	45	1	44	74	.....	.....	.....	.....	.....	127	2	128
Handling freight or baggage.....	8	.....	8	6	.....	.....	.....	.....	.....	14	.....	14
Loading and unloading O.C.S. materials.....	4	.....	4	20	.....	.....	.....	.....	.....	24	.....	24
Work train equipment.....	8	.....	8	5	1	.....	.....	.....	.....	14	.....	12
Cars moved while being loaded or unloaded.....	3	.....	3	10	.....	.....	.....	.....	.....	14	.....	15
Carmen working on or under cars on running track when moved.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	1
Chaining or unchaining cars.....	1	1	.....	.....	.....	.....	.....	.....	.....	1	1	.....
Coupling or uncoupling hose.....	11	.....	11	8	.....	.....	.....	.....	.....	19	.....	19
Turning angle-cock.....	12	.....	12	8	.....	.....	.....	.....	.....	21	.....	21
Coach window falling.....	1	.....	1	1	.....	.....	.....	.....	.....	2	.....	2
Loads shifting in transit or switching.....	4	.....	4	5	.....	.....	.....	.....	.....	12	.....	12
Falling or jumping off passenger train between stations.....	8	3	5	6	1	.....	.....	.....	.....	14	4	10
Cars running away not under control.....	13	2	19	4	.....	.....	.....	.....	.....	17	2	24
Washout.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	1
Individual derailment of equipment in yard tracks.....	7	.....	8	3	.....	.....	.....	.....	.....	10	.....	11
Accidents as a result of handling of explosives & other dangerous articles.....	1	.....	10	.....	.....	.....	.....	.....	.....	1	.....	10
Accidents as a result of train breaking in two.....	2	.....	2	1	.....	.....	.....	.....	.....	3	.....	4
Fires occurring in passenger train equipment.....	.....	.....	.....	2	.....	.....	.....	.....	.....	3	.....	3
Totals.....	1,467	222	1,772	1,618	146	1,760	204	39	223	3,289	407	3,755

STATEMENT NO. 1—PARTICULARS OF ALL HIGHWAY CROSSINGS WITH DESCRIPTION OF PROTECTION OR NON-PROTECTION IN EFFECT FOR THE YEAR ENDED DECEMBER 31ST, 1956

	New-found-land		Prince Edward Island		Nova Scotia		New Brunswick		Quebec		Ontario		Manitoba		Saskatchewan		Alberta		British Columbia		Totals	
	Acc.	I.	Acc.	I.	Acc.	I.	Acc.	I.	Acc.	I.	Acc.	I.	Acc.	I.	Acc.	I.	Acc.	I.	Acc.	I.	Acc.	I.
Gates, Manual.....							1	1	6	3	3	2									10	6
Gates, Automatic.....									1		2		1								4	
Bell.....					1	1	2				3				1				2	1	8	1
Bell and Wigwag.....			2	3	6	9	1	1	3	1	5	33	16		1		1	3	1		48	21
Flashing lights and bell.....			1	1	1	2	2		22	4	37	26	9	32	1	2	11	3			66	20
Other type of protection.....																			1		1	
Watchman.....											3										3	
Unprotected.....	8	1	15	3	2	1	7	19	7	28	176	84	220	28	6	48	50	12	66	36	7	48
Totals.....	8	1	15	6	3	4	2	24	9	32	246	111	305	30	7	53	62	18	75	40	8	52

	1952	1953	1954	1955	1956
Number of accidents which occurred at crossings protected by Gates, Manual.....	7	8	11	13	10
Number of accidents which occurred at crossings protected by Gates, Automatic.....	2	2	2	7	4
Number of accidents which occurred at crossings protected by Bell.....	3	3	5	2	8
Number of accidents which occurred at crossings protected by Bell and Wigwag.....	41	38	45	29	48
Number of accidents which occurred at crossings protected by Flashing Light Signals and Bells.....	39	35	37	52	66
Number of accidents which occurred at crossings protected by Other Types of protection.....					1
Number of accidents which occurred at crossings protected by Watchman.....	7	9	1	2	3
Number of accidents which occurred at crossings Unprotected.....	364	392	353	405	458
Totals.....	463	487	454	510	598

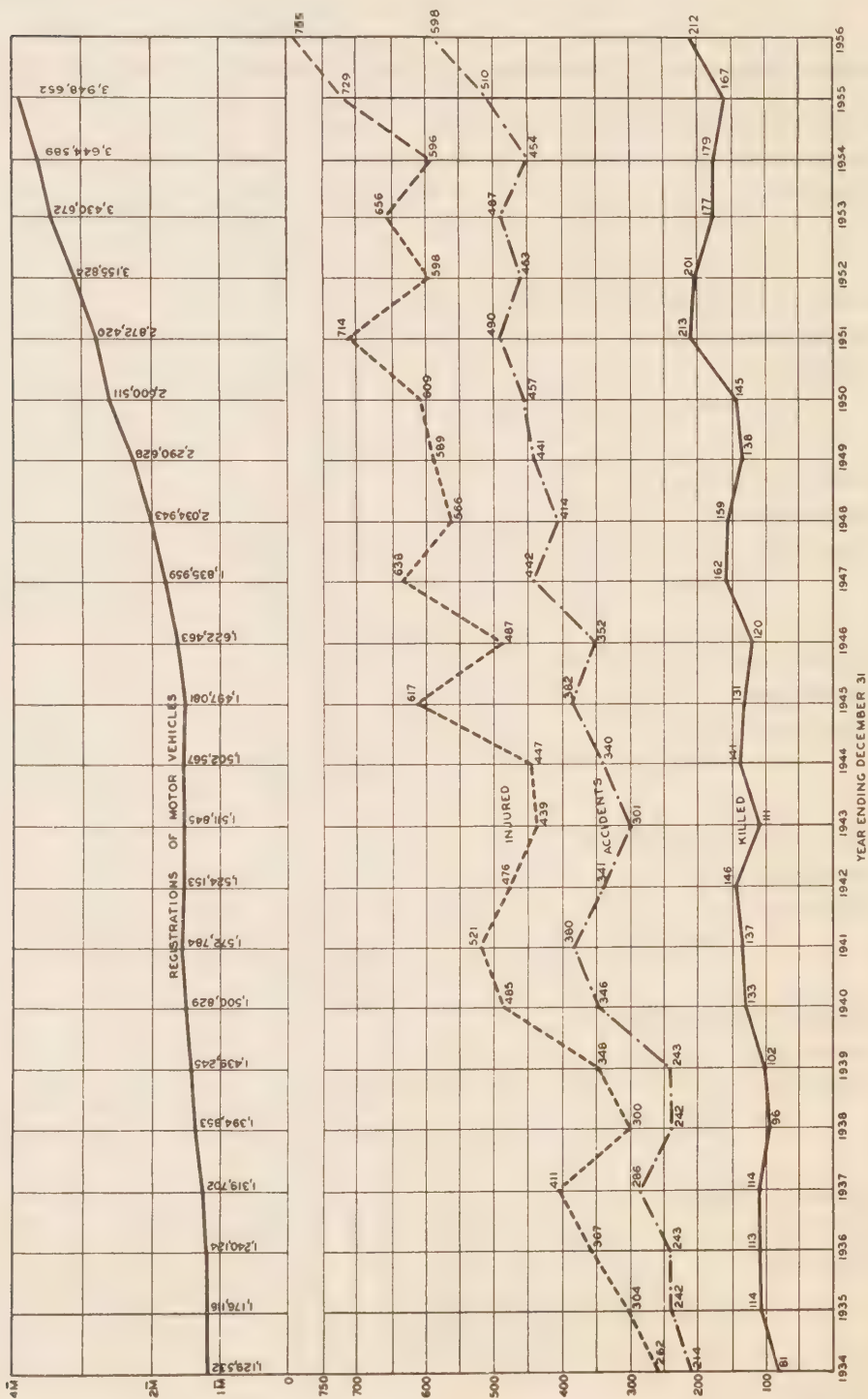
STATEMENT NO. 5—HIGHWAY CROSSING ACCIDENTS BY PROVINCES FOR 5 YEAR PERIOD—1952 TO 1956 INCLUSIVE.

—	NEW- FOUND- LAND	PRINCE EDWARD ISLAND	NOVA SCOTIA	NEW- BRUNS- WICK	QUEBEC	ONTARIO	MANITOBA	SASKAT- CHEWAN	ALBERTA	BRITISH COLUMBIA	TOTALS
1952.....	3	2	15	17	89	192	30	37	49	29	463
1953.....	1	1	11	12	83	198	42	52	58	29	487
1954.....	2	.....	14	13	80	208	34	35	49	19	454
1955.....	3	4	12	18	92	226	37	43	46	29	510
1956.....	8	6	14	24	127	246	30	41	62	40	598

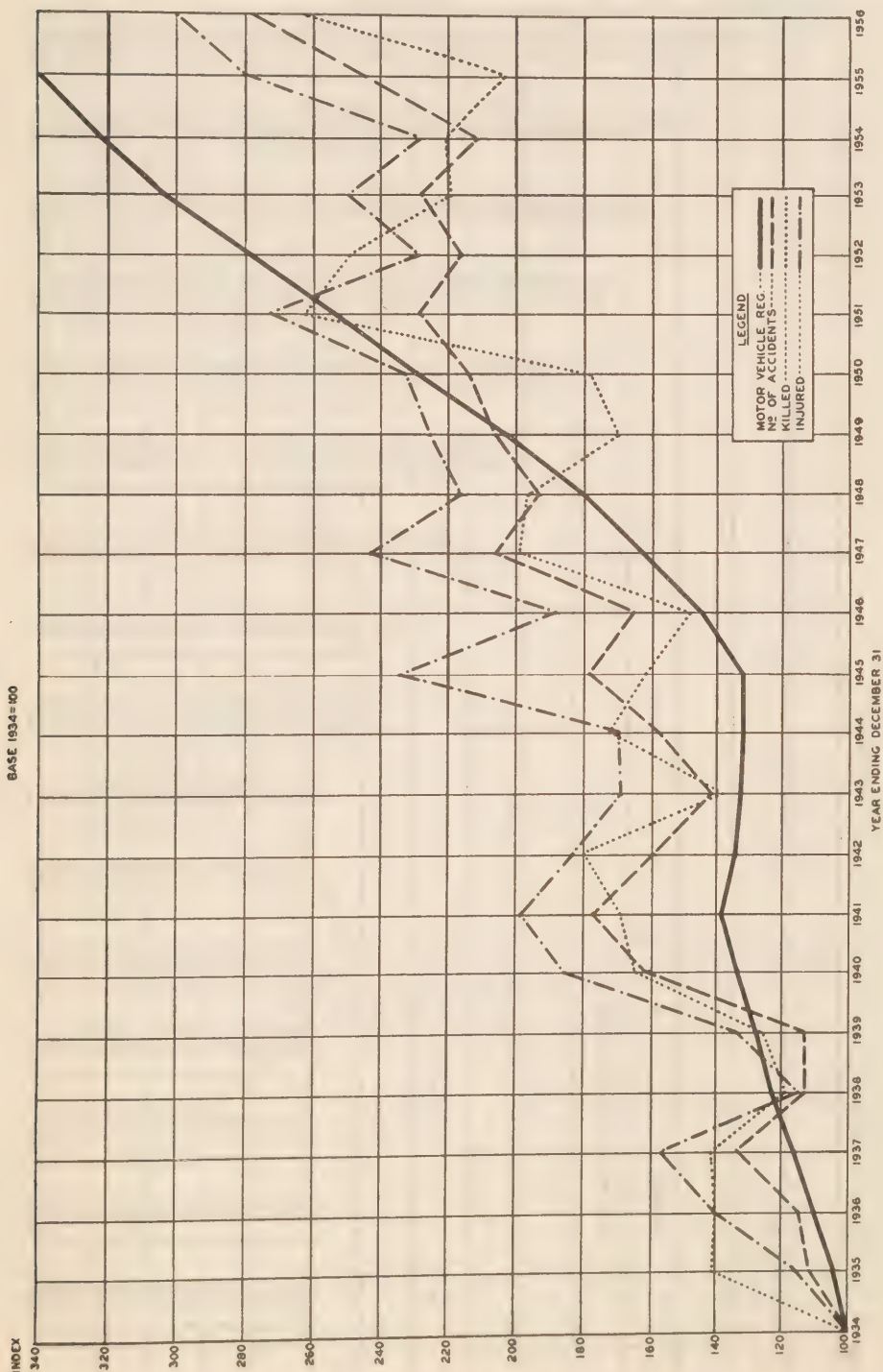
STATEMENT No. 6—CONTRIBUTING FACTORS INVOLVED IN VARIOUS CLASSES OF CROSSINGS ACCIDENTS FOR YEAR 1956.

	Accidents	Killed	Injured
<i>Motor Vehicles Struck by Train—</i>			
Daylight hours.....	209	106	246
Night hours.....	130	52	174
Totals.....	339	158	420
<i>Horse-Drawn or Other Vehicles Struck by Train—</i>			
Daylight hours.....	3		3
Night hours.....			
Totals.....	3		3
<i>Pedestrians Struck by Train—</i>			
Daylight hours.....	14	6	8
Night hours.....	10	8	2
Totals.....	24	14	10
<i>Motor Vehicles Running into Side of Train—</i>			
Daylight hours.....	72	13	96
Night hours.....	137	25	215
Totals.....	209	38	311
<i>Accidents in which Track Cars Involved—</i>			
Daylight hours.....	22	1	40
Night hours.....			
Totals.....	22	1	40
<i>Other Types of Crossing Accident—</i>			
Daylight hours.....	1	1	1
Night hours.....			
Totals.....	1	1	1
<i>Total Number of Accidents—</i>			
Daylight hours.....	321	127	394
Night hours.....	277	85	391
Grand Totals.....	598	212	785

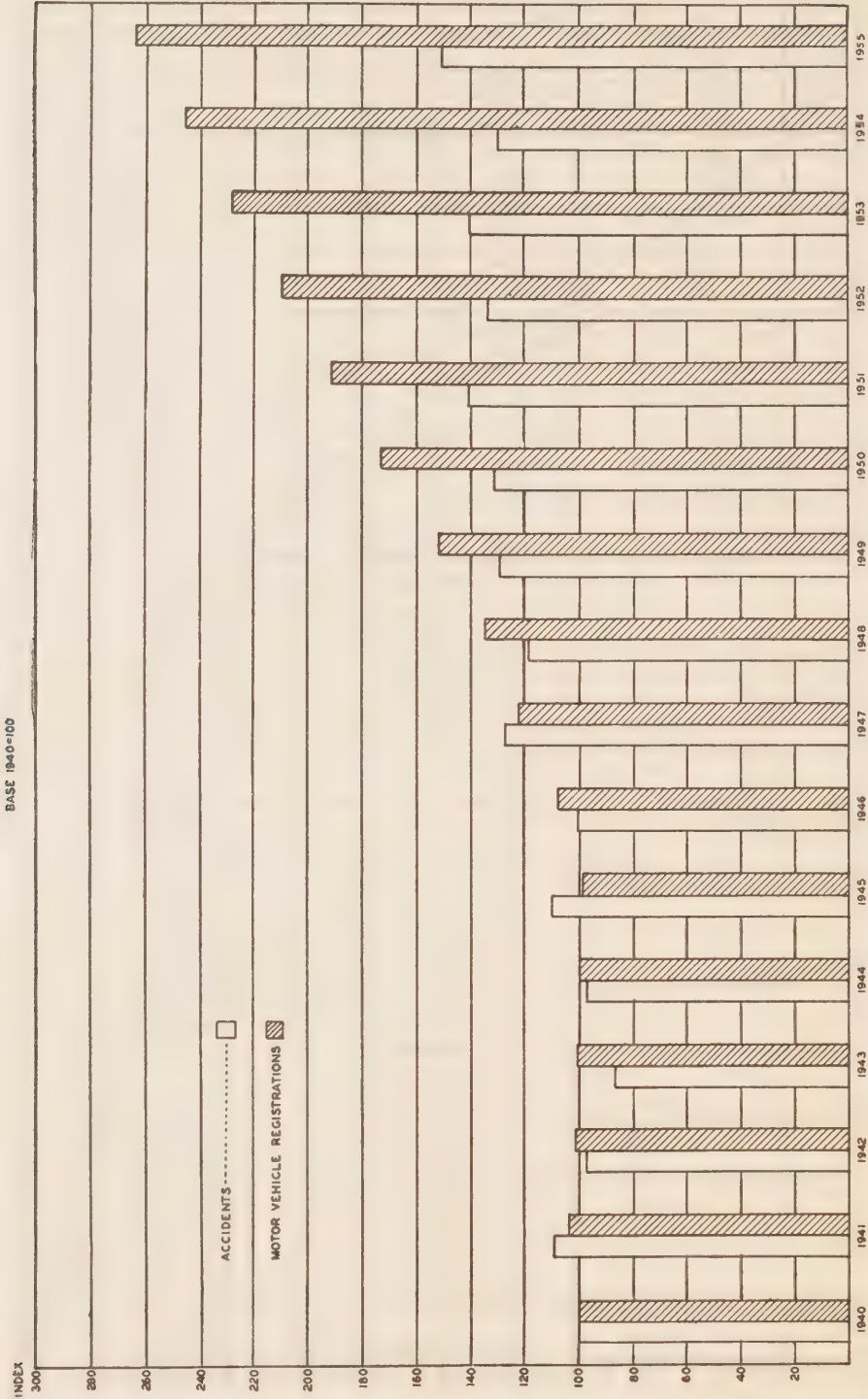
STATEMENT No. 7—MOTOR VEHICLE REGISTRATIONS AND HIGHWAY CROSSING
ACCIDENTS 1934-1956—BOARD OF TRANSPORT COMMISSIONERS FOR
CANADA—OPERATING BRANCH



STATEMENT No. 8—INDEXES OF MOTOR VEHICLE REGISTRATIONS AND HIGHWAY
CROSSING ACCIDENTS 1934-1956—BOARD OF TRANSPORT COMMISSIONERS
FOR CANADA—OPERATING BRANCH



STATEMENT No. 9—INDEXES OF MOTOR VEHICLE REGISTRATIONS AND HIGHWAY
CROSSING ACCIDENTS 1940-1955—BOARD OF TRANSPORT COMMISSIONERS
FOR CANADA—OPERATING BRANCH



STATEMENT No. 10—DEFECTS ON FREIGHT CARS REPORTED BY THE BOARD'S INSPECTORS FOR THE YEAR ENDED DECEMBER 31, 1956.

Classification	Number of Defects
Handholds.....	323
Sill steps.....	374
Ladders.....	149
Running boards.....	272
Safety bars, door locks, end gates end catches, latches, etc.....	69
Miscellaneous safety appliances.....	14
Coupler improper height above rails.....	66
Coupler and pin.....	126
Knuckle and knuckle pin.....	3
Draft gear, yoke, springs, plates, etc.....	425
Carrier iron.....	82
Operating lever.....	278
Buffers, face plates and diaphragms, curtains, etc.....	28
Miscellaneous draft gear defects.....	5
Handbrake equipment.....	452
Foundation brake gear equipment.....	313
Piping, fittings, valves and reservoirs.....	271
Air brake equipment.....	344
Periodic testing, cleaning, etc.....	601
Improper piston travel.....	1,832
Centre sill.....	66
Longitudinal sill.....	1
Side sill.....	17
Cross bearer.....	5
Body bolster.....	31
Miscellaneous underframe.....	14
Car over-due for reweighing (out of date for tare).....	302
Sheathing defects—wood or metal units.....	39
Floor and roofing.....	23
Doors, side, or end, hoppers, hatches and their openers, fasteners, levers, etc...	57
Miscellaneous car body.....	104
All wheel defects.....	184
Axles.....	1
Boxes over-due for repack or inspection.....	381
Journal box and solid bearing.....	160
All anti-friction bearing and associated part defects.....	1
Truck side frame.....	107
Centre casting, side bearing, bolster, etc.....	456
Truck spring defects.....	192
Miscellaneous truck defects.....	3
Emergency tools.....	1
Total Defects.....	8,172

NUMBER OF FREIGHT CARS INSPECTED, SHOWING CARS DEFECTIVE, NUMBER OF DEFECTS, ALSO NUMBER OF CARS INSPECTED FOR OVERDUE FOR WEIGHING FOR TARE AND IMPROPER PISTON TRAVEL FOR THE YEAR ENDED DECEMBER 31, 1956.

Railway	Total Cars Inspected	Total Cars Defective	Total Number of Defects	Cars Inspected	
				Over-due Tare	Improper piston Travel
Canadian National.....	39,591	3,226	4,440	5,169	11,823
Canadian Pacific.....	31,775	2,739	3,320	5,306	13,965
Miscellaneous.....	3,573	277	412	455	693
Totals.....	74,939	6,242	8,172	10,930	26,481

STATEMENT No. 11—DEFECTS ON PASSENGER CARS REPORTED BY THE BOARD'S INSPECTORS FOR THE YEAR ENDED DECEMBER 31, 1956.

Classification	Number of Defects
Handholds.....	22
Sill steps.....	13
Ladders.....	4
Safety bars, door locks, end gates and catches, latches, etc.....	46
Miscellaneous safety appliance defects.....	2
Coupler improper height above rails.....	4
Coupler and coupler pin.....	1
Draft gear.....	2
Carrier iron.....	3
Operating lever.....	5
Buffers, face plates and diaphragms, curtains, etc.....	123
Handbrake equipment.....	105
Foundation brake gear equipment.....	11
Piping, fittings, valves and reservoirs.....	11
Air brake equipment.....	35
Periodic testing, cleaning, etc.....	49
Improper piston travel.....	29
Miscellaneous defects to brake equipment.....	23
Doors, fasteners, levers, etc.....	17
Miscellaneous car body defects.....	2
All wheel defects.....	5
Boxes over-due for repack or inspection.....	84
Journal box and solid bearing defects.....	21
Anti-friction bearing and associated parts.....	4
Truck side frame.....	32
Centre casting, side bearing, bolster, etc.....	8
Truck spring.....	18
Miscellaneous truck defects.....	3
Filters, fans, strainers, intakes, ducts, etc.....	2
Miscellaneous air-conditioning equipment.....	1
Steam line.....	27
Thermostatic emission valves and other control apparatus.....	1
Generator and associated parts.....	12
Batteries and battery holders.....	2
Jumper and receptacles, wiring defects.....	2
Gas holders and connections, piping fittings, gauges, emergency keys, mantles and globes, etc.....	82
Miscellaneous lighting systems.....	2
Cars unclean or unsanitary.....	3
Unsafe condition of seats, parcel racks, berths, etc.....	105
Drinking water and water raising systems.....	106
Emergency tools.....	63
Miscellaneous defects interior passenger train cars.....	1
Total Defects.....	1,091

NUMBER OF PASSENGER CARS INSPECTED, SHOWING CARS DEFECTIVE, NUMBER OF DEFECTS, ALSO NUMBER OF CARS INSPECTED FOR IMPROPER PISTON TRAVEL FOR THE YEAR ENDED DECEMBER 31, 1956.

Railway	Total Cars Inspected	Total Cars Defective	Total Number of Defects	Cars Inspected Improper piston Travel
Canadian National.....	4,982	516	711	1,169
Canadian Pacific.....	3,115	284	374	835
Miscellaneous.....	17	2	6	3
Totals.....	8,114	802	1,091	2,007

STATEMENT No. 12—DEFECTS ON STEAM LOCOMOTIVES REPORTED BY THE BOARD'S INSPECTORS FOR THE YEAR ENDED DECEMBER 31, 1956.

Classification	Number of Defects
Inspections or tests not made as required.....	26
Safety appliances.....	556
Brake equipment.....	412
Driving engine and tender truck wheels; centers, tires and axles.....	189
Lights.....	34
Draft gear and draw gear.....	184
Whistles (Horns), bells.....	78
Springs and spring rigging.....	756
Sanders.....	16
Cabs, cab windows, etc.....	96
Badge plates.....	1
Fire protective appliances.....	262
Gauges, steam and air.....	75
Train communicating signal.....	5
Running defects—En route inspection.....	9
Flues and tubes.....	6
Boiler shell, steam dome, etc.....	187
Firebox sheets.....	38
Crown bolts, stay bolts.....	46
Water glass.....	61
Gauge cocks.....	34
Water column.....	6
Blow-off cocks.....	170
Plugs and studs.....	54
Washout plugs and pads.....	159
Injectors, feed-water pumps, and appurtenances.....	296
Safety valves.....	24
Steam pipes.....	45
Steam and oil valves.....	20
Throttle and dry pipe.....	78
Lubricators and appurtenances.....	4
Lateral motion.....	87
Ashpan dumping gear, grate shakers and fire doors.....	5
Reversing gear.....	27
Cross-heads, guides, pistons and rods.....	118
Cylinders, saddles, steam chests, cylinder cocks.....	55
Smoke boxes, stacks.....	11
Driving boxes, shoes and wedges, and cellars.....	137
Side rods and crank pins.....	42
Valve motion.....	66
Frames.....	41
Trucks.....	141
Trucks—Tender.....	194
Frames—tender.....	88
Tenders.....	146
Stoker.....	5
Miscellaneous, steam locomotives.....	8
Total Defects.....	5,098

NUMBER OF STEAM LOCOMOTIVES INSPECTED, SHOWING ENGINES DEFECTIVE AND NUMBER OF DEFECTS FOR YEAR ENDED DECEMBER 31, 1956.

	Locomotives Inspected	Locomotives Defective	Total Defects
Canadian National.....	3,897	1,578	3,026
Canadian Pacific.....	2,297	908	1,809
Miscellaneous.....	349	104	263
Totals.....	6,543	2,590	5,098

STATEMENT No. 13—DEFECTS ON LOCOMOTIVES OTHER THAN STEAM REPORTED BY THE BOARD'S INSPECTORS FOR THE YEAR ENDED DECEMBER 31, 1956.

Classification	Number of Defects
Inspections or tests not made as required.....	7
Safety appliances.....	136
Brake equipment.....	118
Driving engine and tender truck wheels; centers, tires and axles.....	15
Lights.....	49
Draft gear and draw gear.....	7
Whistles (Horns), bells.....	14
Springs and spring rigging.....	7
Sanders.....	13
Cabs, cab windows, etc.....	37
Gauges, steam and air.....	8
Electric meters (Indicating devices).....	4
Train communicating signal.....	1
Running defects—En route inspections.....	2
Injectors, feed-water pumps, and appurtenances.....	1
Driving boxes, shoes and wedges, and cellars.....	1
Frames.....	2
Trucks.....	24
Internal combustion engines.....	158
Main generator.....	2
Traction motors.....	8
Current collectors.....	1
Circuits, Terminals, cables, etc.....	3
Circuit breakers, switches, contactors.....	6
Control equipment.....	4
Auxiliary electrical machinery.....	4
Fire extinguishers, fire fighting equipment.....	35
Fuel supply.....	63
Accident prevention, cleanliness.....	203
Miscellaneous—Diesel Electric locomotives.....	21
Feedwater system and appurtenances.....	4
Water tanks.....	7
Steam lines and connections.....	7
Essential controls.....	17
Steam generator auxiliary equipment.....	1
Air supply equipment.....	1
Total Defects.....	991

NUMBER OF LOCOMOTIVES OTHER THAN STEAM INSPECTED, SHOWING ENGINES DEFECTIVE AND NUMBER OF DEFECTS FOR YEAR ENDED DECEMBER 31, 1956.

	Locomotives Inspected	Locomotives Defective	Total Defects
Canadian National.....	1,308	372	564
Canadian Pacific.....	869	228	330
Miscellaneous.....	414	70	97
Totals.....	2,591	670	991

STATEMENT NO. 14—STATEMENT OF BOILER EXPLOSIONS AND CROWN SHEETS DAMAGED FOR THE YEAR 1953

Crown Sheets Damaged

Railway	Date	Engine No.	Place	Remarks
Canadian National.....	Feb. 5.....	C.N. 2097.....	Melfort, Saskatchewan.....	Crown sheet damaged due to low water.
Canadian National.....	Aug. 20.....	C.N. 317.....	Hubermouth, Newfoundland.....	Crown sheet damaged due to low water.
Canadian National.....	Sept. 3.....	C.N. 6054.....	Hornepayne, Ontario.....	Crown sheet damaged due to low water.
Canadian National.....	Nov. 6.....	C.N. 2741.....	Edmonton, Calder Yard, Alberta.....	Crown sheet damaged due to low water.
Canadian National.....	Dec. 18.....	C.N. 2509.....	Endako, British Columbia.....	Crown sheet damaged due to low water.
Canadian Pacific.....	July 27.....	C.P. 3101.....	Winnipeg, Manitoba.....	Crown bolt gave way during repairs. One employee killed and one employee injured.

SUMMARIES
Boiler Explosions

Nil

Crown Sheets Damaged

Canadian National.....	5
Canadian Pacific.....	1
Total.....	6

TRANSPORT COMMISSIONERS FOR CANADA

STATEMENT NO. 15—SUMMARY OF REPORTS OF FIRES IN FOREST SECTIONS ORIGINATING WITHIN 300 FEET OF TRACK
ALONG RAILWAY LINES UNDER THE JURISDICTION OF THE BOARD, SEASON OF 1956

	Canadian National Region (a)	Canadian National Central Region)	Canadian National Western Region)	Canadian Pacific (Eastern Region)	Canadian Pacific (Prairie Region)	Canadian Pacific (Pacific Region)	Miscel- laneous (b)	Totals
<i>Fires of Railway Origin—</i>								
<i>Number by causes</i>								
Locomotive, Class A fires.....	13	31	13	8	2	17	2	86
Locomotive, Class B fires.....	8	38	25	11	5	11	3	101
Locomotive, Class C fires.....	1	2	6	1	.....	.....	.....	10
Employees, Class A fires.....	1	3	4	1	.....	1	.....	10
Employees, Class B fires.....	1	6	10	4	1	2	.....	24
Employees, Class C fires.....	.....	1	4	1	.....	.....	.....	6
Fuses, Class A fires.....	1	5	7	1	.....	2	1	17
Fuses, Class B fires.....	2	1	7	1	.....	.....	.....	11
Fuses, Class C fires.....	.....	.....	.....	.....	.....	.....	.....	.....
Burning Smoking materials from Trains, Class A.....	.....	1	5	1	.....	2	.....	9
Burning Smoking materials from Trains, Class B.....	2	2	13	3	.....	3	.....	23
Burning Smoking materials from Trains, Class C.....	.....	.....	3	.....	.....	.....	.....	3
Total, Class A.....	15	40	29	11	2	22	3	122
Total, Class B.....	13	47	55	19	6	16	3	159
Total, Class C.....	1	3	13	2	.....	.....	.....	19
Total.....	29	90	97	32	8	38	6	300
<i>Areas burned (acres)</i>								
Young forest growth.....	32.20	223.00	29.03	4.25	4.25	1.05	1.00	294.75
Merchantable timber.....	.....	53.00	187.25	3.50	.....	.....	.....	243.75
Slashing or old burn.....	.....	5.00	2,011.96	18.00	.....	.....	.....	2,034.96
Other classes of land.....	244.51	229.71	319.44	47.38	2.26	18.50	3.50	865.30
Total.....	276.71	510.71	2,547.68	73.13	6.51	19.55	4.50	3,438.79
<i>Value of Property Destroyed</i>								
Young forest growth.....	\$	\$	\$	\$	\$	\$	\$	\$
Standing timber.....	50.00	2,071.40	120.16	28.95	10.35	14.50	5.00	2,300.36
Forest products.....	.....	163.75	1,654.88	4.56	.....	.....	.....	1,825.19
Other property.....	125.00	.....	3.50	.....	.....	.....	.....	128.50
Total.....	175.00	2,450.15	2,487.11	33.51	10.35	20.02	5.00	5,181.14

Known Causes Other than Railway

Causes	2	5	3	12	2
Campers and travellers, Class A.....	2	5	3	12	2
Campers and travellers, Class B.....	1	7	4	4	4
Campers and travellers, Class C.....			1	2	1
Settlers, Class A.....			1		
Settlers, Class B.....					
Settlers, Class C.....			1		
Other known causes, Class A.....	2		3		3
Other known causes, Class B.....	1	4	3	1	1
Other known causes, Class C.....			2		1
Total, Class A.....	4	5	7		5
Total, Class B.....	2	11	7	7	5
Total, Class C.....			4		2

Areas Burned (acres)

Uses Burned (acres)	5.50	4.00	40.00	10.00	25.00	84.50
Young forest growth.....			17.00			17.00
Merchantable timber.....			42.22	4.00	.52	46.74
Slashing or old burn.....		17.24	205.75	7.75	1.00	271.32
Other classes of land.....						
Total.....	5.50	21.24	304.97	11.75	65.10	419.56

Value of Property Destroyed

	\$	\$	\$	\$	\$	\$	\$	\$	\$
<i>Use of Property Destroyed</i>									
Young forest growth.....	10.00			2,040.00					2,300.00
Standing timber.....				1,000.00					1,000.00
Forest products.....				31.25					31.25
Other property.....		25.00		2,757.76					2,784.61
Total.....	10.00	25.00		5,829.01					6,115.86

Fires of Unknown Origin

Sources of Unknown Origin		Number of Unknowns		Percentage of Unknowns	
Class A.....	1	2	1	9	2
Class B.....	3	5	1	1	3
Class C.....		2			
Total	4	9	2	10	7
					35

Areas Burned (Acres)

as Burned (Acres)						
Young forest growth.....	2.00	81.90	0.50	5.00	1.00	101.35
Merchantable timber.....						10.95
Slashing or old burn.....						25
Other classes of land.....	2.00	75.50	0.50	5.00	1.00	89.45
Total.....	2.00	81.90	0.50	5.00	1.00	101.35

STATEMENT NO. 15—SUMMARY OF REPORTS OF FIRES IN FOREST SECTIONS ORIGINATING WITHIN 300 FEET OF TRACK
ALONG RAILWAY LINES UNDER THE JURISDICTION OF THE BOARD, SEASON OF 1956—Concluded

	Canadian National (Atlantic Region) (a)	Canadian National (Central Region)	Canadian National (Western Region)	Canadian Pacific (Eastern Region)	Canadian Pacific (Prairie Region)	Canadian Pacific (Pacific Region)	Miscel- laneous (b)	Totals
<i>Value of Property Destroyed</i>	\$	\$	\$	\$	\$	\$	\$	\$
Young forest growth.....							25.00	25.00
Standing timber.....								
Forest products.....			20.10	200.00		85.00	3,503.90	3,809.00
Other property.....								
Total.....			20.10	200.00		85.00	3,528.90	3,834.00

(a) Includes Province of Newfoundland.

(b) Includes Quebec North Shore and Labrador Railway; Northern Alberta Railways; White Pass and Yukon Route; Esquimalt and Nanaimo Railway; Dominion Atlantic Railway; Cumberland Coal and Railway Company; Algoma Central and Hudson Bay Railway; Quebec Central Railway; Nipissing Central Railway; Sydney and Louisburg Railway.

NOTE: Class A fires are those which cover an area less than one-fourth acre, regardless of amount of damage

Class B fires are those which cover an area of one-fourth acre to ten acres

Class C fires are those which cover an area over ten acres.

APPENDIX "F"

FEBRUARY 8th, 1956

Mr. C. W. RUMP,
SECRETARY,

BOARD OF TRANSPORT COMMISSIONERS FOR CANADA.

Submitted, herewith, is the Annual Report of the Economics Branch for the year ended December 31, 1956.

M. E. BURWASH,
Director.

The Economics Branch of the Board moved, on May 10, 1956, from offices in No. 3 Temporary Building to the newly constructed fifth floor above other offices of the Board in the Union Station. At the same time the Accounts and Cost Finding Branch moved from quarters in No. 4 Temporary Building to adjoining offices on the fifth floor. The change from separate temporary quarters to adjacent quarters has facilitated the Board's plan for the two Branches to work closely together, and has resulted in better liaison with the rest of the Board.

The 1955 Waybill Analysis was completed in June and published in July, 1956; work is continuing on the 1956 study for publication in 1957. Effective January 1, 1954, these studies have been based on the "continuous" method of sampling every 100th waybill covering the all-rail movement of carload freight between points within Canada. As described in previous reports the waybill information is coded and punched on cards from which machine tabulations are prepared and used for the purpose of analyzing changes in the pattern of traffic.

The total carload movements analyzed in the 1955 sample was 23,229 of which 3,732 originated in the Maritime Region, 10,918 in the Eastern Region and 8,579 in the Western Region. Of these sample carloads, 4,486 contained Agricultural Products, 871 were Animals and Animal Products, 7,017 Mine Products, 2,859 Forest Products and 7,996 Manufactures and Miscellaneous.

The waybill study has provided important information for the Board, the Railways and other interested parties in the field of traffic distribution by type of rate. The high-value traffic, moving under Class Rates, has shown a continuous decline from 1951 to 1954 in terms of sample tons, ton-miles and revenue; the 1955 sample, however, indicated a levelling out in revenue and a moderate upward turn in tonnage. These absolute figures may reflect minor variations in sampling and do not indicate the relationship to changes in total traffic; a measure of relative change is provided by the percentage distribution according to type of rate. This is shown below in terms of ton-miles from 1951 to 1955 and in terms of revenue for the same period:

PERCENT OF SAMPLE TON MILES

Type of Traffic	1951	1952	1953	1954	1955
	%	%	%	%	%
Class Rated.....	8.4	6.7	5.4	4.3	4.3
Commodity Non-Competitive.....	49.1	41.8	34.6	43.4	43.5
Statutory.....	27.1	40.6	47.0	30.1	25.6
Competitive.....	8.7	5.8	7.0	12.5	15.8
Agreed Charge.....	1.0	1.3	1.8	3.2	4.9
Multiple Rates.....	4.4	3.2	2.4	3.9	3.1
Mixed Shipments.....	1.3	.6	1.8	2.6	2.8
Total.....	100.0	100.0	100.0	100.0	100.0

PERCENT OF SAMPLE REVENUE

	%	%	%	%	%
Class Rated.....	21.0	19.0	14.5	10.8	10.2
Commodity Non-Competitive.....	50.8	49.4	45.1	49.4	45.0
Statutory.....	11.1	15.4	17.1	10.4	8.9
Competitive.....	9.7	9.1	12.8	15.8	19.3
Agreed Charge.....	2.5	3.4	4.4	5.9	9.4
Multiple Rates.....	2.8	2.1	1.7	2.0	1.7
Mixed Shipments.....	2.1	1.6	4.4	5.7	5.5
Total.....	100.0	100.0	100.0	100.0	100.0

The percentage of domestic carload traffic moving under Class Rates declined from 8.4 per cent in 1951 to 4.3 per cent in 1954 and 1955. The percentage of sample revenue derived from Class Rate traffic declined from 21 per cent in 1951 to 10.2 per cent in 1955. During the same period from 1951 to 1955 the percentage of Competitive ton-miles increased from 8.7 per cent to 15.8 per cent, and the percentage of Agreed Charge ton-miles increased from 1 per cent to 4.9 per cent. While these trends are well enough defined to point up the direction of change in these types of traffic, the actual percentage figures are influenced by changes in the large volume of traffic moving under Commodity Non-Competitive and Statutory Rates. The percentage of Commodity Non-Competitive traffic declined from 49.1 per cent in 1951 to 43.5 per cent in 1955, while Statutory declined from 27.1 per cent in 1951 to 25.6 per cent in 1955.

The clerical procedures used in processing the Waybill Analysis were reviewed prior to commencement of the 1956 study, and revisions were made with the object of reducing clerical time and making data more readily available from tabulations. The Board investigated, with Canadian railways, the possible extension of the waybill study to include the Canadian portion of international traffic, but a representative waybill sampling method has not been found.

The schedules used by railways in reporting to the Dominion Bureau of Statistics and to the Board were extensively revised in 1956 in order to bring them into line with the Uniform Classification of Accounts. This involved the Accounts and Cost Finding and the Economics Branches of the Board, the Dominion Bureau of Statistics, the Board's Accounting Advisers and the Railways. A change was also made in the Canadian Freight Commodity Statistics

Classification under Board Order No. 90342; this Order, effective January 1, 1957, provided for a more detailed breakdown of commodities in preparing returns pursuant to sections 384 and 385 of the Railway Act.

Studies were made in connection with matters arising out of applications to the Board and attendance at hearings. Other activities of this Branch involved studies in respect to equalization of freight rates, development of industry freight traffic statistics by D.B.S., highway grade crossing statistics, water carriers, pipe lines and telephone companies.

The practice of showing, in this report, a 15-year summary of Canadian railway operating results cannot be continued into 1956 on a comparable basis due to the introduction of a Uniform Classification of Accounts for Class I railways, which was prescribed for the Canadian National and the Canadian Pacific effective January 1, 1956. Use of the Classification by other railways was optional for 1956 and a Condensed Classification was prescribed for Class II, III, and IV railways effective January 1, 1957.

Three tables are presented below. Table 1 shows operating results of Canadian railways on the "old" basis for a 10-year period, 1946 to 1955 inclusive. Table 2 shows operating results for the Canadian National, Canadian Pacific, Quebec North Shore and Labrador and the Pacific Great Eastern, which reported under the "Uniform Classification" in 1956. Table 3 shows operating results for other railways which continued on the "old" accounting basis during 1956.

Total rail revenues, as shown in Table 2, include Railway, Express, Commercial Communications and Highway Transport (Rail). Total rail expenses include the costs associated with producing these revenues plus Net Equipment and Joint Facility Rents and Railway Tax Accruals. It is estimated that the net rail earnings of the four railways using the "Uniform Classification" in 1956, will approximate one hundred million dollars.

The operating results of other Canadian railways, shown in Table 3, reflect an improvement in 1956 over 1955. Operating revenues increased by 6.1 per cent, expenses by 6.0 per cent and there was an increase of about two million dollars in net operating revenue. Revenue freight ton-miles increased by 6.1 per cent while revenue passenger-miles registered a small decrease.

TABLE 1. CANADIAN RAILWAYS 1946-1955

Year	Operating Revenues	Operating Expenses	Net Operating Revenue	Operating Ratio	Revenue Freight Ton Miles	Revenue Passenger Miles
	\$	\$	\$		(000)	(000)
1946	718,501,764	623,529,472	94,972,292	86.8	55,310,308	4,648,558
1947	785,177,920	690,281,047	94,356,873	88.0	60,143,035	3,732,777
1948	875,832,290	808,126,455	67,705,835	92.3	59,080,323	3,477,273
1949	894,397,264	831,456,446	62,940,818	93.0	56,338,231	3,193,174
1950	958,985,751	833,726,562	125,259,189	86.9	55,537,900	2,816,154
1951	1,088,583,789	977,577,062	111,006,727	89.8	64,300,418	3,110,241
1952	1,172,158,665	1,057,186,304	114,972,361	90.2	68,430,417	3,151,261
1953	1,205,935,414	1,100,393,836	105,541,578	91.3	65,267,016	2,985,950
1954	1,099,662,424	1,022,978,539	76,683,885	93.0	58,364,626	2,863,805
1955	1,198,351,601	1,048,564,651	149,786,950	87.5	66,176,129	2,891,685

TABLE 2. CANADIAN NATIONAL RAILWAYS
CANADIAN PACIFIC RAILWAY
QUEBEC NORTH SHORE AND LABRADOR RAILWAY
PACIFIC GREAT EASTERN RAILWAY

Year	Total Rail Revenues	Total Rail Expenses	Net Rail Earnings	Revenue Freight Ton Miles	Revenue Passenger Miles
	\$	\$	\$	(000)	(000)
1956	1,289,162,000	1,188,642,000	100,520,000	72,378,275	2,696,827
1)	1) Eleven Months Actual, Plus December Estimated.				

TABLE 3. OTHER CANADIAN RAILWAYS

Year	Operating Revenues	Operating Expenses	Net Operating Revenue	Revenue Freight Ton Miles	Revenue Passenger Miles
	\$	\$	\$	(000)	(000)
1955	114,816,178	80,336,928	34,479,250	5,360,976	210,351
1956	121,846,000	85,150,000	36,696,000	5,687,000	209,000
1)	1) Estimated				

APPENDIX "G"

FEBRUARY 13th, 1957.

Mr. C. W. RUMP,
Secretary,

BOARD OF TRANSPORT COMMISSIONERS FOR CANADA.

Submitted herewith is the annual report of the Accounts and Cost Finding Branch for the year ended December 31, 1956.

A. BRANGAM,
Director.

As noted in the 1955 report, the preliminary steps in the establishment of the Accounts and Cost Finding Branch were taken during the latter months of 1955. The primary function of the Branch involved administration of the Uniform Classification of Accounts for Class I Common Carriers by Railway in Canada, coming under the jurisdiction of the Board. In addition to the Canadian National Railways and the Canadian Pacific Railway Company for which the Classification was prescribed by Board Order No. 87308, two other carriers, the Quebec North Shore and Labrador and the Pacific Great Eastern, voluntarily adopted the Classification in 1956.

The Board's Examiners, in the course of their duties, visited headquarters accounting and regional accounting offices of the Canadian National and Canadian Pacific in Eastern and in Western Canada. These field checks were for the purpose of ensuring that uniform accounting procedures were being followed in respect to adoption of the new Classification and in general consisted of an examination of the predominant expenditures incurred for a period on representative operating divisions. Verification was made of amounts charged to property accounts and amounts charged to expenses as follows:

Canadian National Railways—

Southern Ontario District (four Divisions) Toronto
British Columbia District (four Divisions) Winnipeg

Canadian Pacific Railway Company—

Quebec District (four Divisions) Montreal
Ontario District (four Divisions) Toronto
Manitoba District (five Divisions) Winnipeg
Manitoba—Weston Shops (Equipment Conversions)

Capital budgets prepared by the Canadian Pacific Railway Company and Canadian National Railways for year 1956 were reviewed in order to verify that the authorized expenditures were properly allocated therein between Property Accounts (Capital) and Expenses, with particular attention to the change under the new Classification in accounting principle requiring the capitalization of a portion of the expenditures on track structure.

In order to provide a guide for the conduct of examinations of the accounts of the two major railways, a manual of instructions was written up during the year dealing with, among other things, Investment in Road and Equipment (50 primary accounts, grouped into three general accounts); Revenues (30 primary accounts, grouped into six general accounts); Expenses (141 primary accounts, grouped into 12 general accounts); Income (31 primary accounts, classified as 14 credit and 17 debit items respectively); Retained Income (nine primary accounts, classified as four credit and five debit items respectively); General Balance Sheet (70 primary accounts, classified as 31 debit and 39 credit items respectively).

A further step towards facilitating uniformity in accounting was taken when the Board adopted the procedure of issuing accounting circulars. These contain formal and informal interpretations by the Board.

Formal interpretations designated as "O" Cases are covered by an order of the Board. The first of such was Order No. 90444 dated December 14, 1956.

Informal interpretations designated as "A" Cases were issued with the proviso that any carrier may take exception to such interpretations by filing with the Secretary of the Board an objection in writing stating reasons therefor.

The matter of a Classification for Classes II, III and IV carriers was completed during the year. Preparatory work in the compilation of this condensed Classification involved discussions and correspondence with other than Class I railways and culminated at a meeting in the Board's office at Ottawa, October 31, 1956, attended by 18 representatives of the carriers. As a result, a revised draft was placed before the Board for consideration and approval. This emerged as Board Order No. 90367 dated December 5, 1956, to become effective January 1, 1957.

The Branch was engaged in examination of the books and records of the Canadian Pacific Railway Company at the head office, Montreal, together with records of certain subsidiary affiliate or leased companies to determine the net investment in rail transportation facilities at December 31, 1955. This involved bringing forward from December 31, 1952, similar information compiled by Messrs. Riddell, Stead, Graham and Hutchison, filed with the Board October 27, 1953. The amount so determined—\$1,332,000,000 at December 31, 1955—is referred to at page 27 of the Interim Judgment in the matter of the application dated May 1956 from the Railway Association of Canada on behalf of certain railways for authority to increase freight rates by 15% (25¢ per ton on coal and coke).

Revised annual reporting schedules to conform with the Classification were completed to become effective with the year ended December 31, 1956. The various schedules as they emanated from the office of the Accounting Adviser to the Board, after discussions with accounting officers of the two major railways, were here scrutinized, discussed with representatives of the Dominion Bureau of Statistics and agreement reached as to their requirements and those of the Board. The form of report contained 68 schedules brought together under one cover (including statistical schedules reviewed during 1955).

The main financial schedules deal with Balance Sheet, Income, and Retained Income accounts for rail, express, commercial communications, highway transport and, where appropriate, separation between rail and non-rail operations. Separate schedules are provided in which to show the details of all the more important accounts included in these three main financial schedules. These schedules are accompanied by a set of instructions, usually printed on the same page as the schedule itself, outlining the methods of compilation to be used in arriving at each item.

Studies were made in connection with matters arising out of applications before the Board, and consequential attendance at hearings.

APPENDIX "H"

GENERAL ORDER No. 818

In the matter of Regulations respecting Agreed Charges pursuant to section 32 of the Transport Act:

File No. 40994

WEDNESDAY, the 8th day of February, A.D. 1956.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

In pursuance of the powers specifically conferred by section 32 of the Transport Act—

It is ordered

1. That the regulations attached hereto, entitled "Regulations of The Board of Transport Commissioners for Canada with respect to Agreed Charges pursuant to section 32 of the Transport Act", be, and they are hereby, prescribed for observance by carriers and shippers making agreed charges under the provisions of the Transport Act.

2. That General Order No. 814, dated July 29, 1955, be, and it is hereby, rescinded.

HUGH WARDROPE,

Assistant Chief Commissioner,

The Board of Transport Commissioners for Canada.

REGULATIONS OF THE BOARD OF TRANSPORT COMMISSIONERS
FOR CANADA WITH RESPECT TO AGREED CHARGES
PURSUANT TO SECTION 32 OF THE TRANSPORT ACT

1. Agreements for agreed charges, in tariff form, shall be of uniform size, viz., eight (8) inches wide by eleven (11) inches long.

2. A duplicate original of an agreement for an agreed charge or amendment thereto shall be filed with the Board accompanied by a Filing Advice in the form set forth in Appendix A hereto.

3. Each agreement for an agreed charge filed with the Board shall bear in its upper right margin a consecutive number of the carrier or person filing the same, with the prefix "CTC(AC)".

4. Filing with the Board is deemed to be as of the date received by the Board, which date shall be stamped upon the filed document.

5. Agreements for agreed charges shall contain specific reference to the carriers and shippers who are participants therein.

6. Concurrently with the forwarding of an agreement for an agreed charge to the Board for filing, carriers participating therein who are subject to the jurisdiction of the Board shall publish such agreement by keeping on file, and open to public inspection during reasonable business hours, a copy thereof at the following places respectively to the extent stated:

- | | | | | | |
|-----|--|---|------------------------------------|---|--|
| (a) | Headquarters
Regional offices
Division offices
District offices | } | All agreements for agreed charges. | | |
| (b) | Agency offices or
stations | | | } | Such agreements for agreed charges as apply from or to such offices or stations. |
| | | | | | |
| | | | | | |

7. Notices of Intention, filed by United States carriers as defined by subsection 3, section 32 of the Transport Act, shall be in the forms as follows:

- (a) APPENDIX "B-1", when such notice is to apply to a specific agreement for an agreed charge;
- (b) APPENDIX "B-2", when such notice is to apply to all agreements for agreed charges.

(1) A United States carrier shall be made party to an agreement for an Agreed Charge to which the Notice of Intention relates by appropriately amending the agreement on file with the Board, or by adding such carrier as a party to an agreement before it is filed with the Board. Such amendment or agreement, when filed, shall be deemed to signify the concurrence of the railway companies in Canada who are signatory parties to the said agreement.

(2) A carrier having filed an Appendix "B-2" notice shall not thereafter file an Appendix "B-1" notice while the former is in effect.

(3) An Appendix "B-2" Notice of Intention may be revoked by filing with the Board a revocation thereof to take effect as to subsequent agreements for agreed charges, as of the date of filing.

8. Notice of Intent, filed by a shipper pursuant to subsection (9) of section 32 of the Transport Act shall be in the form set out in Appendix C hereto.

9. Applications to the Board pursuant to subsection (10) of section 32 for a charge to be fixed for the transport of goods of a shipper shall be governed by the following rules of practice:

- (1) The application shall be filed with the Board and be signed by or on behalf of the applicant and contain a clear and concise statement of the facts relied upon to establish unjust discrimination and clearly identify the agreement for the agreed charge by specifying its CTC (AC) number and the names of the carriers that are parties to the agreement. The application filed with the Board shall also have an endorsement showing the names of parties to which a copy of the application was delivered or mailed as required by rule (2).
- (2) The applicant shall concurrently deliver or mail a copy of the application to each carrier and shipper, or agent thereof, who is a party to the agreement for the agreed charge involved.

- (3) Within fifteen (15) days of the service of the copy of the application any of the carriers or shippers may file an answer thereto and shall concurrently deliver or mail a copy thereof to the applicant.
- (4) Within five (5) days of the service of an answer the applicant may file a reply thereto and shall concurrently deliver or mail a copy thereof to the party who filed the answer.
- (5) Upon completion of these pleadings or expiration of the periods specified the Board will decide whether its findings shall be made upon the written submissions or what alternative action shall be taken.
- (6) The Board may in any case extend the period for filing an answer or reply or permit a departure from the rules.

APPENDIX "A"

FORM OF FILING ADVICE

(Form to be 8 inches wide by 11 inches long)

(Name and address of carrier)

Date.....

FILING ADVICE (AC).....
(number consecutively)

Director,
Traffic Department,
Board of Transport Commissioners for Canada,
Ottawa, Ontario.

In compliance with the requirements of the Transport Act I submit herewith duplicate original agreement for an agreed charge or amendment thereto for filing with the Board, as follows:

Supplement Number	CTC (AC) Number	Effective Date	General Description
	<i>Note</i> —If an acknowledgment of receipt by the Board for filing is required, a duplicate of the filing advice must be enclosed.		

Name of filing officer.....

Title.....

APPENDIX "B-1"

NOTICE OF INTENTION

(Form to be 8 inches wide by 11 inches long)
(Name and address of carrier filing notice)

Date.....

Director,
Traffic Department,
Board of Transport Commissioners for Canada,
Ottawa, Ont.

IN RE: Agreed Charge C.T.C. (AC).....
(insert number)

The.....hereby files with the
(United States carrier)

Board of Transport Commissioners for Canada this NOTICE OF INTENTION
to become party to the agreement for an Agreed Charge as identified above,

from..... to
(point(s) of origin) (destination(s))

via..... and states;.....
(description of route(s))

(a) That the railway of this company operates.....
(Note A)

named in the agreement for an agreed charge, and constitutes, or forms part
of a continuous route by rail established between the points of origin and destina-
tion named herein and in the said agreement:

(b) That all of the railway companies within the United States over whose
lines the continuous route (or routes) is established concur.

(Signed).....

(Title).....

Note A:

Insert whichever of the following is applicable:

- "at point(s) of origin".
- "at point(s) of destination".
- "between such points".

If insufficient space for all names of origin or destination or for description of
routes, additional sheets of same size may be attached, or such information
may appear on reverse side.

APPENDIX "B-2"

NOTICE OF INTENTION

(Form to be 8 inches wide by 11 inches long)

(Name and address of carrier filing notice)

Date.....

Director,
Traffic Department,
Board of Transport Commissioners for Canada,
Ottawa, Ont.

The.....hereby files with the
(United States carrier)

Board of Transport Commissioners for Canada this NOTICE OF INTENTION to become party to every agreement for an agreed charge, and every supplement thereto, from a point of origin in Canada to a destination in Canada where the railway of this company

- (a) operates at a point of origin or destination named in the agreement or supplement, or between such points, and
- (b) constitutes, or forms part of, a continuous route by rail established between such points, entirely in Canada or partly in Canada and partly in the United States.

And states that all of the railway companies within the United States, over whose lines continuous routes are established, concur.

(Signed).....

(Title).....

APPENDIX "C"

NOTICE OF INTENT

(Form to be 8 inches wide by 11 inches long)

(Name and address of shipper filing notice)

Date.....

Director,
Traffic Department,
Board of Transport Commissioners for Canada,
Ottawa, Ont.

IN RE: Agreed Charge C.T.C. (AC).....
insert number

The.....(name of shipper).....hereby files with the Board of
Transport Commissioners for Canada this NOTICE OF INTENT to become a
party to the agreement for an agreed charge as identified above, to become

effective on the.....day of.....19....., with the
consent of the undersigned carriers.

(Signed).....
shipper

(Title).....

Consented to for and on behalf of carriers party to the above agreement

(Signed).....

(Title).....

GENERAL ORDER No. 819

In the matter of rules covering the preparation of accounts to apply to joint projects undertaken under Order of the Board:

And in the matter of General Order No. 794, dated May 6th, 1954:

File No. 11026.74

THURSDAY, the 16th day of February, A.D. 1956.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Upon reading the submissions filed—

It is ordered that General Order No. 794, dated May 6th, 1954, be, and it is hereby, amended:

1. By striking out sub-paragraph (a) of the paragraph headed "Labour" in the operative part of the said Order and substituting therefor the following:

"(a) Labour Cost

Labour cost shall include a proportion of wages allowed on statutory holidays and a proportion of wages allowed for vacation pay, and shall be calculated as follows:

- I. To the wages of all employees paid on an hourly or daily basis add six per cent.
- II. To the wages of all employees paid on a monthly basis add four per cent."

2. By striking out the paragraph headed "WORK TRAIN" in the operative part of the said Order and substituting therefor the following:

"WORK TRAIN

Flat rate, including rental of one locomotive (all sizes and types), caboose, all repairs, fuel and supplies, engine and train or switch crew wages and supplies, all enginehouse expense—\$26.00 per hour, or fraction thereof—for additional equipment rental, see Schedule attached), with the addition of a work train trackage charge of \$1.50 per train mile; minimum trackage charge—\$10.00."

HUGH WARDROPE,

Assistant Chief Commissioner,

The Board of Transport Commissioners for Canada.

GENERAL ORDER No. 820

In the matter of the application of The Railway Association of Canada for approval of Supplement No. 5 to Regulations for the Transportation of Explosives and Other Dangerous Articles in Rail Freight and Rail Express Service:

File No. 1717.B

TUESDAY, the 21st day of February, A.D. 1956

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Upon reading the submissions filed—

It is ordered

1. That the said Supplement No. 5 to Regulations for the Transportation of Explosives and Other Dangerous Articles in Rail Freight and Rail Express Service, on file with the Board under file No. 1717.B, be, and it is hereby, authorized for the observance of the railway companies subject to the jurisdiction of the Board which accept explosives and other dangerous articles for carriage.

2. That this General Order No. 820 shall come into force on the 1st day of May, 1956.

HUGH WARDROPE,

Assistant Chief Commissioner,

The Board of Transport Commissioners for Canada.

GENERAL ORDER No. 821

In the manner of the Regulations for the Transportation of Explosives and Other Dangerous Articles in Rail Freight and Express Service, including Specifications for shipping containers:

File No. 1717.1.12

THURSDAY, the 3rd day of May, A.D. 1956.

HUGH WARDROPE, *Asst. Chief Commissioner.*

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

It is Ordered as follows:

The said Regulations are hereby amended—

(1) Cancel and supersede subparagraph (a) (13) of section 73.263, page 21 of Supplement No. 3 to read as follows:

(a) (13) Spec. 1F, 1G, or 1H. Polyethylene carboys in wooden boxes, plywood drums or boxes, or metal crates.

(2) Add subparagraph (c) (5) to section 73.266, page 68 of Tariff to read as follows:

(c) (5) Spec. 1F, 1G, or 1H. Polyethylene carboys in wooden boxes, plywood drums or metal crates.

(3) Add subparagraphs (i) (5) and (i) (6) to section 272, page 71 of Tariff to read as follows:

(i) (5) Spec. 1F, 1G, or 1H. Polyethylene carboys in wooden boxes, plywood drums or boxes, or metal crates.

(i) (6) Spec. 6J. Steel barrels or drums having inside spec. 2S polyethylene drum. Gross weight restriction indicated by the gross weight embossed in the steel barrel or drum shall be waived.

(4) Add subparagraphs (a) (3) and (a) (4) to section 73.277, page 71 of Tariff to read as follows:

(a) (3) Spec. 1F, 1G, or 1H. Polyethylene carboys in wooden boxes, plywood drums or boxes, or metal crates. Authorized for sodium hypochlorite solution not over 16 per cent strength only.

(a) (4) Spec. 6J. Steel barrels or drums having inside spec. 2S polyethylene drum. Gross weight restriction indicated by the gross weight embossed in the steel barrel or drum shall be waived. Authorized for not over 16 per cent sodium hypochlorite Solution only.

(5) Add new subparagraphs (a) (10) and (a) (11) to section 73.289, page 73 of Tariff, to read as follows:

(a) (10) Spec. 1F, 1G, or 1H. Polyethylene carboys in wooden boxes, plywood drums or boxes or metal crates.

(a) (11) Spec. 6J. Steel barrels or drums having inside spec. 2S polyethylene drum. Gross weight restriction indicated by the gross weight embossment in the steel barrel drum shall be waived.

(6) Add Specification 1H, to page 125 of Tariff, as follows:

Specification 1H; polyethylene carboys in low carbon steel or other equally efficient metal crates.

1. Compliance. (a) Required in all details.

2. Capacity and marking of carboy. (a) Containers $4\frac{1}{2}$ to 11 gallons capacity are classed as carboys. Actual capacity must be the marked capacity plus 5 per cent minimum. Must be permanently marked to indicate capacity, maker, month and year of manufacture; mark of maker to be registered with the Bureau of Explosives.

3. Polyethylene carboys. (a) Carboys shall be made of polyethylene with no plasticisers or additives and have a minimum melt index value of 2.5 grams per 10 minutes as determined in accordance with method acceptable to the Bureau of Explosives. Carboys must have a minimum weight and wall thickness in accordance with the following table:

<i>Marked Capacity</i>	<i>Minimum wall thickness</i>	<i>Minimum weight of bottles</i>
Gallons	Inch	Pounds
$4\frac{1}{2}$	1/16	3
$5\frac{1}{2}$	1/16	4
11	1/16	8

(b) Closing device shall be of material resistant to the lading and adequate to prevent leakage.

(c) Polyethylene carboys, as manufactured and filled to marked capacity with a material which remains in a liquid form, shall be capable of withstanding a 4-foot drop without leakage, after prior conditioning for 24 hours to at least -10°F . or lower, onto solid concrete so as to strike diagonally on the bottom corner.

4. Outside Containers. (a) Metal crates:

(1) Specifications for each size outside container must be filed by each plant prior to start of production and be approved by the Bureau of Explosives.

5. Marking of outside container. (a) Each outside container must be plainly marked by attachment of a metal plate, or permanent marking in contrasting colour directly on the polyethylene carboy in a visible area. Marking must be in letters and figures at least $\frac{3}{4}$ inch high and must be by embossing or stamping when applied on metal plates. Marking must be as follows:

(a) B.T.C.—1H. This mark shall be understood to certify that the complete package complies with all specification requirements.

(2) Name or symbol (letters) of company setting up the package, or other party assuming responsibility for its compliance with the specification requirements; this must be registered with the Bureau of Explosives and located just above or below the mark specified in paragraph (a) (1) of this section.

6. Tests. (a) One sample, taken at random and with inner container filled to marked capacity with water and closed as for use, shall be capable of withstanding prescribed tests without leakage or serious rupture of outer container. Tests shall be made of each size by each company starting production. The type tests are as follows:

(1) Complete package must be capable of withstanding 2 drops from a height of 4 feet onto solid concrete, the first drop to be made diagonally so top corner will strike the concrete; the second drop onto a 2-inch by 6-inch timber resting on the concrete with the 6-inch leg vertical, the drop being made with the package in a horizontal position and at right angles to the timber so that impact is near the center of the crate sidewall members.

HUGH WARDROPE,

*Assistant Chief Commissioner,
The Board of Transport Commissioners for Canada.*

GENERAL ORDER No. 822

In the matter of the Canadian Freight Classification and the Express Classification for Canada, and Sections 325 and 365 of the Railway Act:

And in the matter of General Order No. 695, dated November 14, 1946:

File No. 25639

WEDNESDAY, the 16th day of May, A.D. 1956.

HUGH WARDROPE, *Asst. Chief Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Upon reading the submissions filed—

It is ordered as follows:

General Order No. 695, dated November 14, 1946, is amended by striking out the words "Collingwood, Ont." from the list of Boards of Trade in paragraph numbered 5 of the operative part of the said Order.

HUGH WARDROPE,

Assistant Chief Commissioner,

The Board of Transport Commissioners for Canada.

GENERAL ORDER No. 823

In the matter of the regulations governing the location, construction and operation of loading racks, unloading racks or points, marine terminals, storage tanks, pipe lines, refineries and any installations or works for the handling, manufacturing, processing and storing of flammable liquids:

File No. 28638.2-B

FRIDAY, the 15th day of June, A.D. 1956.

HUGH WARDROPE, *Asst. Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

L. J. KNOWLES, *Commissioner.*

In pursuance of the powers conferred upon it by sections 34, 272 and 290 of the Railway Act, and of all other powers possessed by it in that behalf, and upon the report and recommendation of the Director of Operation of the Board—

It is hereby ordered as follows:—

1. The following Regulations govern the location and construction and regulate and control the operation of any installations or works for the handling, manufacturing, processing or storing of flammable liquids:

- (a) on the right-of-way owned by any railway company subject to the jurisdiction of the Board; or
- (b) on that portion of any property within 250 feet of such right-of-way when served by any railway company subject to the jurisdiction of the Board.

2. The rules and regulations herein prescribed apply only to new installations, and/or additions or changes to existing installations. Installations in operation before the date of this Order, which are not in accordance with the terms hereof, shall be made to conform to the rules and regulations herein prescribed, if in the judgment of the Board such action is deemed necessary.

3. The provisions of this Order do not apply to a "company", a "company pipe line" or an "extra-provincial pipe line" as defined in section 2 of the Pipe Lines Act, R.S.C. 1952, chapter 211.

4. General Order No. 716 dated May 10, 1948, is rescinded.

SECTION 1—APPLICATIONS

(1) Before commencing the operation of such installations or works for handling, manufacturing, processing or storing of flammable liquids or making changes or additions to existing installations or works, the owning or operating company shall secure the Board's approval, through the railway concerned. Applications shall be accompanied by plan in quadruplicate, at a scale of not less than one hundred feet to one inch, and including a profile at a scale of twenty feet to one inch, showing in red thereon the proposed location of such

installations or works, in relation to railway tracks, railway property boundaries, sewers, drains, water courses, adjacent buildings, or other structures. Applications shall be accompanied by evidence of approval of appropriate local authority, which may take the form of plan signature by such local authority or of a letter addressed to the owning or operating company by such local authority.

(2) Where conditions will not permit of the requirements being observed, the owning or operating company may report, through the railway company, to the Board, forwarding such plans and information as are required. The Board will give due consideration to such cases, but will not approve any departure from the requirements where hazard to the public interest would result.

SECTION 2—DEFINITIONS

In these regulations,

(a) *Boil over*—means that action peculiar to certain flammable liquids which occurs when hot liquid from the surface works its way down to a layer of water which may be present. (The hot liquid causes the water to flash into steam which may throw a wave of oil up and over the side of the tank.)

(b) *Breather Valve*—means a properly designed and constructed pressure and vacuum valve which isolates the vapour in a tank from the atmosphere while closed and which opens to allow vapour to escape from or enter the tank when the predetermined pressure or vacuum, at which the valve is set to operate, is reached.

(c) *Check Valve*—means a valve which permits the liquid in a pipe line to travel in only one direction in the line.

(d) *Crude Petroleum*—means hydrocarbon mixtures that have a flash point below 150° F. and have not been processed in a refinery.

(e) *Distance from Track*—means the shortest distance measured in a horizontal line from the gauge side of the nearest rail, unless otherwise indicated.

(f) *Dyke*—means an earthen, concrete, steel or solid masonry enclosure designed to be liquid tight and to withstand a full hydraulic head, and so constructed as to provide the required protection.

(g) *Electrical Facilities*—means wiring and electrical equipment used for operating equipment or to provide electric lighting but does not include equipment or wiring used to control static electricity.

(h) *Encasing Pipe or Culvert*—means a pipe, culvert or conduit protecting and enclosing a pipe line or pipe lines carrying flammable liquids.

(i) *Fire Wall*—means a wall that is resistant to fire and impervious to vapour and made of non-combustible material with fire resistance not less than one hour. (Wall board, sheet rock or asbestos partitions are not considered satisfactory fire walls.)

(j) *Flame Arrester*—means an arrester constructed of a bank of parallel metal plates or tubes having a large surface of metal to dissipate heat, or other approved protective device to prevent the entrance of flame into a storage vessel.

(k) *Flammable Liquid*—means any liquid having a flash point below 175°F. and having a vapour pressure not exceeding 40 pounds per square inch (absolute) at 100°F.

(l) *Flammable Liquids*—means the following liquids divided in three classes as follows:

Class I Liquids—liquids, except Crude Petroleum, having flash points at or below 80°F.

Class II Liquids—liquids, except Crude Petroleum, having flash points above 80°F. and below 175°F.

Crude Petroleum, with flash point below 150°F.

(m) *Flash Point*—means the minimum temperature in degrees Fahrenheit at which a flammable liquid will give off flammable vapour as determined by Tagliabue's Open Cup Tester. (Other approved methods commonly used in industry, such as the Tag Closed Cup Tester and the Pensky-Martens Closed Tester, may be used but in case of dispute the Tagliabue's Open Cup test shall govern.)

(n) *Loading Rack*—means any structure with equipment for the loading of flammable liquids into tank cars or tank trucks.

(o) *Main Track*—means a track extending through yards and between stations upon which trains are operated by timetable or train order or both, or the use of which is governed by block signals or other means of control. Classification in any particular case may be decided by the Board's Director of Operation.

(p) *Processing Plant*—means that portion of a property in which flammable liquids are mixed, heated, separated or otherwise processed as principal business, but does not include plants defined herein as refineries.

(q) *Pipe Line*—means piping used for the transfer of flammable liquids but does not include transmission pipe line covered by other regulations of the Board.

(r) *Pump*—means a mechanical pumping unit that is used for the transfer of flammable liquids.

(s) *Refinery*—means a plant in which flammable liquids are produced on a commercial scale from crude petroleum, natural gasoline or other hydrocarbon sources.

(t) *Storage Facilities*—means facilities for the bulk storage of flammable liquids but does not include portable drums or other small containers.

(u) *Unloading Rack*—means any structure with equipment for the overhead unloading of flammable liquids from tank cars or tank trucks.

(v) *Vapour Pressure*—means the pressure, measured in pounds per square inch (absolute), exerted by a volatile liquid as determined by the "Standard Method of Test for Vapour Pressure of Petroleum Products (Reid Method)". (A.S.T.M. d323 latest revision.)

(w) *Vent*—means an outlet of sufficient size to prevent pressure or vacuum buildup from exceeding design rating in a tank when being filled or emptied as well as to permit normal breathing due to temperature variations.

SECTION 3—STORAGE FACILITIES

(1) General—In no case shall any tank be located less than 20 feet from any track.

(2) *Aboveground Storage Tanks*

(a) The following minimum distances from main track to nearest point of tank shall be observed with respect to the location of storage tanks according to classification of contents and capacity.

<i>Classification Flammable Liquids</i>	<i>Capacity of Tanks Gallon (Imperial)</i>	<i>Minimum distance in feet to nearest point of tank from main track</i>
Class I	501 to 20,000	70 Feet
	20,001 to 40,000	80 Feet
	40,001 to 60,000	90 Feet
	60,001 to 100,000	100 Feet
	100,001 to 150,000	110 Feet
	150,001 to 250,000	120 Feet
	250,001 and over	150 Feet
Class II	One-half the distance prescribed for Class I	
Crude Petroleum	Any capacity	250 Feet
Open top storage tank		400 Feet

(b) Except in the cases of refineries or processing plants, storage tanks for Class I Liquids shall not be installed inside buildings, or on ground that cannot be dyked, should dykes be required.

(c) Each aboveground tank for storage of Class I Liquids shall be equipped with breather valves properly sized and with settings designed to keep pressure and vacuum within safe limits.

(d) Each aboveground tank shall be fitted with adequate emergency pressure relief opening or valve. This may take the form of a weak seam or joint in the top, or between the top and the shell of the tank, or one opening of sufficient size for both venting and emergency relief or some other approved form of emergency relief device.

(e) All vent openings for tanks storing Class I Liquids, excepting safety valves, shall be provided with flame arresters, or venting devices that normally remain closed when not under pressure or vacuum, except that tanks under 2,500 gallons may have open vents.

(f) Storage tanks installed on ground which does not drain or slope away from railway property, or which slopes or drains into adjacent waters or congested areas, shall be protected by suitable dykes, and every such dyke shall have a net capacity not less than that of the largest tank plus 10 per cent of the aggregate capacity of all other tanks served by the enclosure.

(g) Tanks containing Crude Petroleum, if located where railway property or adjacent private property would be exposed to a boil-over of the liquid, shall be surrounded by a dyke of sufficient size to contain the capacity of the tanks. Such dyke shall be provided at top with flareback sections designed to turn back a boil-over wave, with the exception that flareback sections shall not be required for dykes enclosing approved floating roof tanks or when means are available for extinguishing a fire in the tanks. A dyke surrounding a tank containing Crude Petroleum shall not also enclose another tank containing Class I or Class II Liquids.

(3) *Underground Storage Tanks*

(a) The following minimum distance from main track to nearest point of tank shall be observed with respect to the location of underground storage tanks according to classification of contents and capacity.

One-half the distance prescribed in section 3(2) (a) (Aboveground Storage Tanks) for like class liquids and tank capacity.

(b) No underground tanks for Class I Liquids shall be located under or within any building on railway property.

(c) All connections shall be made through the top of the tank above the liquid level.

(d) Tanks shall be protected against corrosion on the outside in a satisfactory manner.

(e) Underground tanks shall be set on firm foundation and surrounded with soft earth or sand, well tamped in place. Tanks shall be covered with a minimum of 2 feet of earth, or shall be covered with not less than one foot of earth on top of which shall be placed a slab of reinforced concrete not less than 4 inches thick. On railway property or when subjected to vehicular traffic or likely to be so subjected in the future, tanks shall be covered with at least 3 feet of earth or 18 inches of well tamped earth plus either 8 inches of asphaltic concrete or 6 inches of reinforced concrete which shall extend at least one foot horizontally beyond the outline of the tank in all directions.

(f) Every underground tank or compartment thereof shall be vented through piping adequate in size to prevent blow-back of vapour or liquid at the fill opening while tank is being filled. Vent pipes shall be not less than 1½" nominal inside diameter. The lower end of the vent pipe shall enter the tank through the top and shall not extend into the tank more than 1 inch. Vent pipes shall drain toward the tank without sags or traps in which liquid can collect. The discharge point of vent pipe outlets shall be outside buildings and so located that flammable vapours will not enter building openings or be trapped under eaves or other obstructions.

(i) For Class I Flammable Liquids, the height of the vent discharge point shall not be less than 12 feet above the adjacent ground level. If the vent pipe is less than 10 feet in length or greater than 2 inches in nominal inside diameter, the outlet shall be provided with a vacuum and pressure relief device or an approved flame arrester.

(ii) For Class II Flammable Liquids the vent outlet shall be above the possible snow level and may be fitted with return bends, coarse screens or other devices to minimize ingress of foreign material.

(g) Where necessary to prevent floating or moving, tanks shall be securely anchored or weighted.

(h) Before being covered or placed in use, underground tanks and piping thereto shall pass a test for tightness.

SECTION 4—PRODUCT HANDLING FACILITIES

(1) *Piping*

(a) Pipe lines running parallel to a track shall be laid at a distance not less than 10 feet from the track. An exception may be made for those pipe lines directly connecting two or more tank car loading or unloading racks.

(b) Unless the installation is fenced, pipe lines laid on railway right-of-way within 20 feet of the nearest track shall be laid at a depth of at least 3 feet below the surface of the ground or be encased in a suitable pipe or duct, top of which shall not protrude above ground level. Such encasing may consist of metal or reinforced concrete pipe, or reinforced concrete trench with removable

reinforced concrete slab covers; or pipe may be imbedded in solid reinforced concrete provided thickness of concrete around pipe at any point shall not be less than one-half times the nominal diameter of pipe so encased.

(c) On other than railway right-of-way, paragraphs (a) and (b) do not apply to loading and unloading lines serving adjacent loading or unloading racks, provided the pipe lines are adequately protected so as not to be damaged by vehicular traffic or create a hazard to railway personnel.

(d) Pipe lines laid above the surface of the ground shall be substantially supported and protected against physical damage and excessive stresses arising from settlement, vibration, expansion or contraction. Where the ground elevation is above the level of the track, a dyke or drain shall be constructed to prevent the flow of liquids to the track.

(e) (i) Pipe lines under railway tracks, when the operating pressure does not exceed 100 pounds per square inch, shall be constructed of Standard Pipe or other material satisfactory to the railway company, properly fastened at the joints, and the top of the pipe or encasing pipe shall be not less than 4 feet below the base of rail, or $2\frac{1}{2}$ feet below the bottom of the right-of-way ditch or natural ground surface whichever provides the lowest elevation.

(ii) Where required, an encasing pipe of sufficient strength to withstand exterior loading shall be installed, extending the entire width of embankment or for such additional distances as may be required. Where encasing pipe is required, the minimum length shall be measured between points 10 feet from the centre line of single track or 10 feet beyond the centre line of outside track and perpendicular thereto.

(iii) In the event that a pipe line constructed prior to July 12, 1955, is required to be operated at a pressure exceeding 45 pounds per square inch, application shall be made to the Board through the railway company concerned before operations are commenced at the increased pressure.

(f) When pipe lines located under railway tracks are originally intended for pressures over 100 pounds per square inch, provisions of sections 4 of General Order No. 812 shall apply.

(g) On railway property, pipe lines crossing under roads or driveways shall be laid in an encasing pipe or culvert. The top of said encasing pipe or culvert shall be not less than 3 feet below the surface of road or driveway.

(h) Surface indication where deemed necessary by the railway shall be provided to show where pipe lines are laid below the surface and "danger" signs placed where necessary, particularly in railway yards and station grounds.

(i) Pipe lines shall be tested initially after installation at a pressure 50 per cent in excess of the contemplated working pressure and test shall be continued for at least 30 minutes.

(j) All piping, both aboveground and underground, where subject to external corrosion, shall be painted or otherwise protected.

(2) Valves

(a) Pipe systems shall contain a sufficient number of valves to protect the plant in the event of physical damage. Pipe systems in connection with pumps shall contain a sufficient number of valves properly to control the flow of liquid in normal operation and in the event of physical damage. Valves and fittings shall be of steel or other suitable material for use with the liquid being handled.

(b) Connections to pipe lines, by which equipment such as tank cars or tank trucks discharge flammable liquids by means of pumps into aboveground storage tanks, shall be provided with means to prevent accidental backflow of liquid into tank cars or tank trucks.

(c) Lines for loading or unloading tank cars shall be equipped with valves at the loading or unloading connection and at the storage tank.

(d) Each connection to an aboveground tank located below normal liquid level shall be provided with an internal or external control valve located as close as practicable to the shell of the tank. The external valve and connections should be made of steel unless the chemical characteristics of the flammable liquid are incompatible.

(e) Valves in pipe lines below the surface of the ground and within 20 feet of a track shall not protrude above ground level but shall be placed in suitable valve boxes. The cover of these boxes shall not protrude above ground level, and shall not be less than 6 feet from the nearest track. Valve boxes shall be kept locked when not in use.

(f) All tank valves in a bulk storage plant that is not fenced shall be fastened by locks when the plant is unattended.

(3) *Pumphouses, Pumps and Motors*

(a) Non-explosion-proof electric motor driven pumps and internal combustion engine driven pumps shall not be located in the possible path of vapour travel and when housed shall be in a pumphouse having fire walls constructed between the pump and engines or motors. Where shafts pierce dividing walls, vapour-proof packing glands shall be installed.

(b) Explosion-proof motor driven pumps may be installed outdoors or in pumphouses.

(c) Pumphouses shall be located not less than 10 feet from any storage tank, warehouse or other buildings. This requirement does not apply to outdoor electric motor driven pumps provided the electrical equipment meets the requirements of the Canadian Electrical Code for Class I Group D (for use in hazardous locations).

(d) Exhaust pipe from an internal combustion engine shall be carried outside a building to a safe point and shall be suitably screened against emission of carbon sparks. Air intake to carburetor or internal combustion engine shall be at least 6 inches above pumphouse floor.

(e) A main control switch to electric motor or internal combustion engine shall be provided, and located in such a place that in the event of explosion and/or fire the electric motor or engine may be quickly and safely shut down.

(f) Floors of pumphouses shall be constructed of concrete, masonry or crushed stone or other approved spark-proof and incombustible material.

(g) Pumphouses shall be adequately ventilated.

(h) Containers for the storage or measuring of flammable liquids, whether filled, partially filled or empty, shall not be stored at any time in pumphouses.

SECTION 5—LOADING AND UNLOADING FACILITIES

(1) *Prevention of Electric Sparks*

(Insulation of rail joints, grounding and bonding of pipe lines, pumps, tanks and other structures.)

Loading racks, unloading racks, connecting pipe lines, pumphouses, storage tanks and other equipment and structures shall be protected from explosion and fire that may be caused by static electricity, electric sparks, or stray electric currents in accordance with the requirements of the Board's General Order No. 602.

(2) *Distances and Clearances*

(a) Distance or distances prescribed herein shall be measured in a straight line, from the main track to the centre line of track where loading or unloading rack or point is located.

(b) The following minimum distances from main track shall be observed:

<i>Loading Racks</i>		<i>Unloading Racks</i>	
Casing-head Gasoline	Class I Liquids Except casing-head Gasoline	Class II Liquids & Crude Petroleum	Class I and Class II Liquids and Crude Petroleum
75 feet	50 feet	35 feet	Subject to Negotiation but not less than 25 feet if tank cars are unloaded from the bottom outlet.

(c) That portion of overhead loading and unloading structure or equipment over 4 feet above top of rail shall not be closer than 6 feet from the track on straight track. Swing pipe or pipes, when not in use, shall be folded back or swing clear at least 6 feet from the track and be securely locked in that position.

(d) That portion of overhead loading and unloading structures or equipment 4 feet or less above top of rail shall not be less than 3 feet $7\frac{3}{4}$ inches from the track.

(e) When track is curved, the distance between overhead loading and unloading structures or equipment and track, as stated in (c) and (d), shall be increased by 1 inch per degree of rack curvature.

(f) Tank car loading or unloading racks for Class I Liquids and Crude Petroleum shall not be placed within 100 feet of station buildings, ash pits, grain elevators, rail shop buildings, and other important structures. This distance may be reduced to 50 feet for Class II Flammable Liquids.

(3) *Equipment*

Loading spouts, unloading connections or pipes shall be constructed of a material which is resistant to sparking caused by friction or percussion.

SECTION 6—OTHER FACILITIES

(1) *Refineries, Processing Plants*

(a) No distillation, cracking or treating unit, gas plant, separator, working tank or other processing units of a refinery or processing plant shall be located at less distance than 250 feet from main track.

(b) Refineries or processing plants shall be located on ground sloping away from railway property, otherwise suitable dykes shall be installed.

(2) *Fire Fighting Facilities*

Fire extinguishers suitable for oil fires shall be carried on the premises. If such extinguishers are subject to freezing, they shall be adequately protected

(3) *Electrical Facilities*

(a) All electrical facilities shall conform to those regulations set forth in the latest edition of the Canadian Electrical Code, as well as Provincial and Local regulations where applicable.

(b) Electric power lines crossing an installation, when not controlled by circuit breakers, shall be carried in conduit underground or be supported in conduit by carrying cable. Supports shall be so spaced that the breaking of a line and the swinging of the free ends of wire will not result in contact between the wire and such installation. This requirement does not apply to electric lines for plant operation.

(4) *"No Smoking" Signs*

Smoking shall be prohibited except in designated locations. "No Smoking" signs shall be conspicuously posted where hazard from flammable vapours may be normally present.

SECTION 7—OPERATION OF FACILITIES

(1) *Loading and Unloading*

(a) The loading or unloading of tank cars shall be carried out only during the hours of daylight except where approved explosion-proof electric lights or approved explosion-proof flash lights are provided. Open flame lanterns or other exposed flame lights or fires shall not be used or permitted during loading or unloading operations. Flood lighting at safe distance is permitted.

(b) Tank car loading or unloading of Class I Liquids, except Liquid Road Asphalt or Tar, direct from or into drums, highway tank trucks, wagons or portable containers is prohibited.

(c) When loading or unloading tank cars, Regulations for the Transportation of Explosives and Other Dangerous Articles in Rail Freight and Rail Express Service, as prescribed by the Board, shall be complied with.

(d) All Marine Dock pipe lines shall be subjected by the owning or operating company in charge to pressure test 50 per cent greater than the maximum working pressure in the spring of each year following the thawing out of the frost in the ground for purposes of ascertaining if any leakage exists. When pumping, all pipe lines shall be inspected by the owning or operating company in charge, at frequent intervals.

(2) *Shipping*

Tank car shipments containing Class I Liquids, except Liquid Road Asphalt or Tar, shall not be offered for shipment unless originally consigned or subsequently reconsigned to parties having private siding or railway siding facilities equipped for piping the liquid from tank cars to permanent storage tanks of sufficient capacity to receive the contents of tank car.

(3) *Inspection*

All installations shall be thoroughly inspected and tested annually by the owning or operating company in charge and shall be subject to inspection at any time by any duly authorized officer of the Board.

(4) *Leaks*

Leaks in piping, joints and valves shall not be permitted to continue. Defective valves or fittings shall be replaced if they cannot be repaired.

(5) *Discharge of Flammable Liquids*

No flammable liquids or liquid residue from any tank or pipe line shall be discharged onto or through railway property or be permitted to enter directly or indirectly into any lake, river, watercourse, sewer, drain or culvert.

(6) *Maintenance*

The installation shall be kept free of dead or dry grass, weeds and other unnecessary combustible matter.

(7) *Reports*

The railway company shall report by wire, and in addition forward promptly to the Director of Operation, Board of Transport Commissioners, Ottawa, a report of every fire or explosion, pipe line or tank failure occurring at or in any installation for the handling of flammable liquids on or adjacent to railway property.

HUGH WARDROPE,

Assistant Chief Commissioner,

The Board of Transport Commissioners for Canada.

GENERAL ORDER No. 824

In the matter of the Regulations for the Transportation of Explosives and Other Dangerous Articles in Rail Freight and Rail Express Service, including Specifications for Shipping Containers issued March 1, 1953:

File No. 1717.12.206

FRIDAY, the 5th day of October, A.D. 1956.

A. SYLVESTRE, Q.C., *Deputy Chief Commissioner.*

H. B. CHASE, C.B.E., *Commissioner.*

Upon the recommendation of the Director of Operation of the Board—

It is hereby ordered as follows:

The said Regulations are amended as follows:

(1) Cancels and supersedes subparagraphs (a) (6) Section 73.257 on page 65 of Tariff and page 20 of Supplement No. 3 and page 8 of Supplement No. 5, and add subparagraphs (a) (9) and (a) (10) to read as follows:

73.257 Electrolyte (acid) or corrosive battery fluid.

(a) (6) Spec. 12B or 12C. Fibreboard boxes with inside containers of polyethylene or other electrolyte acid resistant non-fragile materials having secure closures capable of withstanding conditions incident to transportation without leakage and unless containers are rigid or semi-rigid in nature they must be contained in other strong inside containers: minimum thickness of polyethylene or other materials shall be not less than 0.003 inch for any film sheet for multi-wall containers or not less than 0.006 inch for single wall containers; not more than 12 such inside containers shall be packed in one outside box and the marking prescribed in 73.401(c) shall not be required. Inside containers shall be packed to prevent movement within the box. Dry storage batteries or battery charger device may be packed in the same outside box when adequately separated from other inside containers; gross weight of completed package shall not exceed 65 pounds. Complete package, closed as for shipment, with inside containers filled with liquid of same specific gravity as commodity to be shipped, must be capable of withstanding at least 2 drops from a height of 4 feet onto solid concrete without leakage from or rupture of inside containers.

(a) (9) Spec. 12B. Fibreboard boxes with inside containers as authorized by paragraph 32 of Spec. 12B.

(a) (10) Spec. 12B. Fibreboard boxes having not more than 1 inside glass bottle, with acid-proof closure, not over 1 gallon capacity. Box shall be constructed of at least 350-pound test (Mullen or Cady) double-faced corrugated fibreboard of full depth telescope type. Cushioning and closure of box (pressure sensitive tape may be used) must be such that a representative box, with inside glass bottle filled with water, shall be capable of withstanding two drops from a height of 4 feet onto solid concrete without breakage of inner bottle or failure of the closure.

(2) Add paragraph 32 to Specification 12B, page 208 of Tariff to read as follows:

Para. 32 Special box; authorized only for electrolyte (acid), corrosive battery fluid, or hydrochloric acid mixtures of not over 28 per cent strength. (a) Box shall have not more than 12 inside glass bottles, with acid-proof closures, of not over 32 ounces capacity each. Box shall comply with this specification and be constructed of at least 275-pound test (Mullen or Cady) doublewall corrugated fibreboard and be equipped with at least 125-pound test (Mullen or Cady) double-faced corrugated fibreboard scored sheets so designed as to provide two thicknesses of corrugated fibreboard between each bottle and one thickness between bottles and sides and ends of box. Top and bottom pads of the same size as the top and bottom area of the box and of at least 125-pound test (Mullen or Cady) double-faced corrugated board are required or box shall comply with this specification and be constructed of at least 325-pound test (Mullen or Cady) double-faced corrugated board and be equipped with at least 200-pound test (Mullen or Cady) corrugated fibreboard $\frac{1}{2}$ inch extended cell slotted partitions so designed as to provide a void space between the ends and sides of outside box and the inside cell partition and shall be provided with top and bottom pads, of the same area as the box, of at least 200-pound test (Mullen or Cady) double-faced corrugated fibreboard.

A. SYLVESTRE,

*Deputy Chief Commissioner,
The Board of Transport Commissioners for Canada.*

GENERAL ORDER No. 825

In the matter of the Regulations for the Transportation of Explosives and Other Dangerous Articles in Rail Freight and Rail Express Service, including Specifications for Shipping Containers issued March 1, 1953:

File No. 1717.88.41

FRIDAY, the 16th day of November, A.D. 1956.

HUGH WARDROPE, *Asst. Chief Commissioner.*

F. M. MACPHERSON, *Commissioner.*

*Upon the recommendation of the Director of Operation of the Board—
It is hereby ordered as follows:*

The said Regulations are amended as follows:

Specification 4BA, Welded or Brazed Steel Cylinders made of definitely prescribed steels

(1) Cancels and supersedes introductory text paragraph 8(c) page 159 of Tariff to read as follows:

8(c) Longitudinal seams in shells: By copper brazing, copper alloy brazing, or by silver alloy brazing. Copper alloy composition must be: Copper 95 per cent minimum, Silicon 1.5 per cent to 3.85 per cent, Manganese 0.25 per cent to 1.10 per cent. The melting point of the silver alloy brazing material must be in excess of 1000°F. The plate edge must be lapped at least eight times the thickness of plate, laps being held in position, substantially metal to metal, by riveting or by electric spot-welding. Brazing must be done by using a suitable flux and by placing brazing material on one side of seam and applying heat until this material shows uniformly along the seam of the other side.

(2) Cancels and supersedes introductory text of paragraph 10(a) page 159 of Tariff to read as follows:

10. Wall thickness. (a) For outside diameters over 6 inches the minimum wall thickness shall be 0.078 inches. In any case the minimum wall thickness shall be such that the calculated wall stress at minimum test pressure (paragraph 14) shall not exceed the lesser value of any of the following:

(3) Cancels and supersedes paragraph 14(d), page 160 of Tariff to read as follows:

14(d) Cylinders must be tested as follows:

(1) At least one cylinder selected at random out of each lot of 200 or less shall be tested as outlined in paragraphs (a), (b), and (c) of this section to at least 2 times service pressure.

(2) All the cylinders not tested as outlined in subparagraphs (d) (1) of this section must be examined under pressure of at least 2 times service pressure and show no defect.

(4) Cancels and supersedes Note 1 to Table 1, paragraph 20(a) on page 161 of Tariff to read as follows:

¹A heat of steel made under any of the above specifications, chemical analysis of which is slightly out of the specified range, is acceptable, if satisfactory in all other respects, provided the standard permissible variations from specified chemical ranges and limits published in the American Iron and Steel Institute Products Manual, "Alloy Steel: Semifinished: Hot Rolled and Cold Finished Bars," dated July 1955, are not exceeded or are approved by the Board of Transport Commissioners or the Bureau of Explosives.

HUGH WARDROPE,

*Assistant Chief Commissioner,
The Board of Transport Commissioners for Canada.*

OTTAWA, May 8, 1956.

CIRCULAR NO. 279

File No. 45—Reporting of accidents to the Board.

Referring to the Board's Circular Letter of December 14th, 1955, dealing with the reporting of accidents which are not attended with personal injury at the request of some of the Railways concerned a conference was held in Ottawa on May 7th, 1956 for the purpose of reaching an understanding with respect to the type of accidents to be reported, together with the reporting procedure.

As a result of the discussion which took place, in this connection, the following reporting procedure has been decided upon:

Public Crossing Accidents:—

In order to keep the Board currently informed with respect to the hazards existing at public crossings, it is proposed to supplement the present reporting procedure to the extent of reporting all accidents which occur at public crossings, where movements on the railway come in contact with or have been contacted by vehicles using the highway, irrespective of whether or not such accidents are attended by death or personal injury.

Since sub-section 2 of Section 312 of the Railway Act is not applicable to accidents not attended by death or personal injury, the statutory speed restriction need not be applied following such accidents and neither is it necessary to notify the Board of the accident by telegraph, as required by sub-section 2 of Section 288 of the Railway Act.

The reporting of such accidents to the Board on Schedule "A", completing the items affected, is acceptable to the Board. This practice will enable the Railways to use the same form as is now in existence in connection with the reporting of accidents attended by death or personal injury.

All Types of Collisions and Derailments Occurring on the Main Track involving no Personal Injury:—

(a) Accidents involving apparent damage of less than \$1,000 to rolling stock not to be reported to the Board.

(b) Accidents involving apparent damage to rolling stock of between \$1,000 and \$5,000 to be reported on Schedule "B" by mail with answers to all applicable items.

(c) Accidents involving apparent damage to rolling stock amounting to over \$5,000 to be reported by wire under the applicable reporting symbols as set out in General Order No. 361 and signed by the Reporting Officer.

The provisions of this Circular are to be made effective on July 1st, 1956. In reporting such accidents the reports should be submitted to the Board's Director of Operation as promptly as possible following the accident.

It should be understood, however, that the requirements of Section 288 of the Railway Act and the provisions of General Order No. 361 dated March 15th, 1922, remain in effect.

By Order of the Board,

C. W. RUMP,

Secretary.

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